DOCUMENT RESUME

ED 396 481 EC 304 861

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TITLE	Matching State Goals to a Model of Outcomes and Indicators for Grade 4. Technical Report 15.
INSTITUTION	National Center on Educational Outcomes, Minneapolis, MN.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	Sep 95
CONTRACT	H159C00004
NOTE	251p.; For related documents, see EC 304 858-862.
AVAILABLE FROM	National Center on Educational Outcomes, University of Minnesota, 350 Elliott Hall, 75 East River Road, Minneapolis, MN 55455 ($20).
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	Comparative Analysis; *Disabilities; *Educational Assessment; *Educational Objectives; Grade 4; Intermediate Grades; Models; National Surveys; *State Standards
IDENTIFIERS	National Center on Educational Outcomes; Performance Indicators

ABSTRACT

A national survey of state-articulated student goals and outcomes led to the analysis of documents from 30 states for correspondence with the outcomes specified for grade 4 in the conceptual model developed by the National Center on Educational Outcomes for Students with Disabilities (NCEO). Overall, the study found moderately high correspondence between state goals and the NCEO model at the domain level, but weak correspondence at the outcome and indicator levels, though this may have been more due to the degree of specificity used by states than a lack of conceptual congruence with the NCEO model. Charts and graphs compare the congruence at the levels of domains, outcomes, and indicators for the following states: Arkansas, California, Colorado, Delaware, District of Columbia, Florida, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Maryland, Michigan, Montana, Nebraska, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Virginia, Washington, and West Virginia. Reports of the document analysis done for each of these states are provided. (DB)

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ED 396 481

Technical Report 15

Matching State Goals to a Model of Outcomes and Indicators for Grade 4

National Center on Educational Outcomes

The College of Education and Human Development
UNIVERSITY OF MINNESOTA

EC304861

in collaboration with

St. Cloud State University
and
National Association of State Directors of Special Education

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Technical Report 15

Matching State Goals to a Model of Outcomes and Indicators for Grade 4

Prepared by:
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National Center on Educational Outcomes

The College of Education and Human Development
UNIVERSITY OF MINNESOTA

September, 1995

The National Center on Educational Outcomes (NCEO) was established in October, 1990 to work with state departments of education, national policymaking groups and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education and St. Cloud State University.

The Center is supported through a Cooperative Agreement (H159C00004) with the U.S. Department of Education, Office of Special Education programs. Opinions or points of view do not necessarily represent those of the U.S. Department of Education or offices within it.

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Overview

In 1990, the President and governors of the United States agreed upon six national education goals. Their purpose was to help improve the quality of education by setting high standards and focusing on how well our society is able to achieve them. The original six goals (and two others) have become part of education reform law and at least ten different standards-setting groups have been working to set out guidelines of what U.S. students should know and be able to do. The passage of the *Goals 2000: Educate America Act*, along with other education reform initiatives such as the *School to Work Opportunity Act* and the *Improving America's Schools Act* (the former *Elementary and Secondary Education Act*) are designed to further stimulate standards-based assessment and reform in schools across the nation.

States have been following closely on the heels of these national reform initiatives. Within six months of announcing the national educational goals, 18 states had announced their own versions of the goals, and within one year 44 states had done so. Many states have gone on to articulate learner outcomes, objectives, performance standards, and benchmarks/indicators. And, building on the Goals 2000 work, most states are now using language that includes *all* students in their educational reforms, including students with disabilities.

At the same time that these reforms were initiated, the National Center on Educational Outcomes for Students with Disabilities (NCEO) began its work by identifying a conceptual model of outcomes and indicators appropriate for all students, including students with disabilities (Figure 1). Using a multi-attribute, consensus-building approach (Vanderwood & Ysseldyke, 1993), hundreds of stakeholders from a variety of perspectives (including national reformers, special educators, school administrators, teachers, parents, measurement experts, legislators, and representatives of advocacy groups) contributed to the articulation of eight major outcome domains.

The model articulates outcomes and indicators at key stages in a student's development: age 3, age 6, grade 4, grade 8, school-completion, and post-school. In Figure 2, the specific outcomes within each domain are provided for the grade 4 level. Possible indicators of each outcome have also been identified. The overall design, from domain to outcomes to indicators, is shown in Figure 3 on the following page.

One of NCEO's activities is to check the extent to which there is correspondence between state articulated student outcomes and the outcomes specified in the NCEO conceptual model. This matching activity also gives us the opportunity to present an inventory of the outcomes and indicators that have been articulated by each state at the grade 4 level. We believe this information will be useful to state and local level practitioners involved in the articulation of educational goals, performance standards, assessments, and curriculum frameworks at different age and grade levels.

Figure 1. NCEO Conceptual Model of Education Outcomes

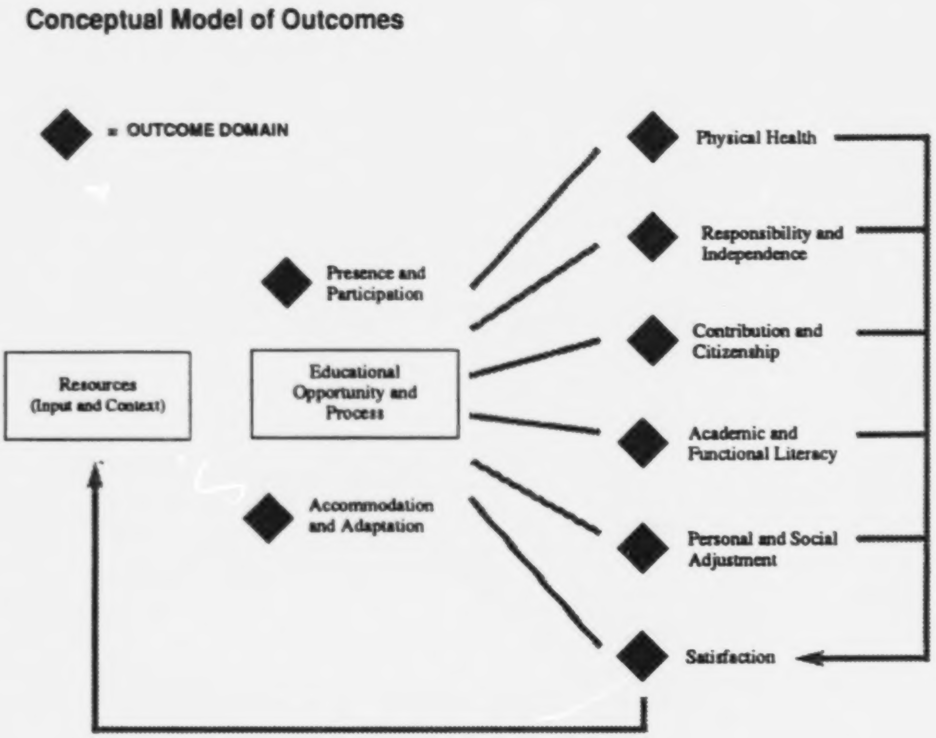
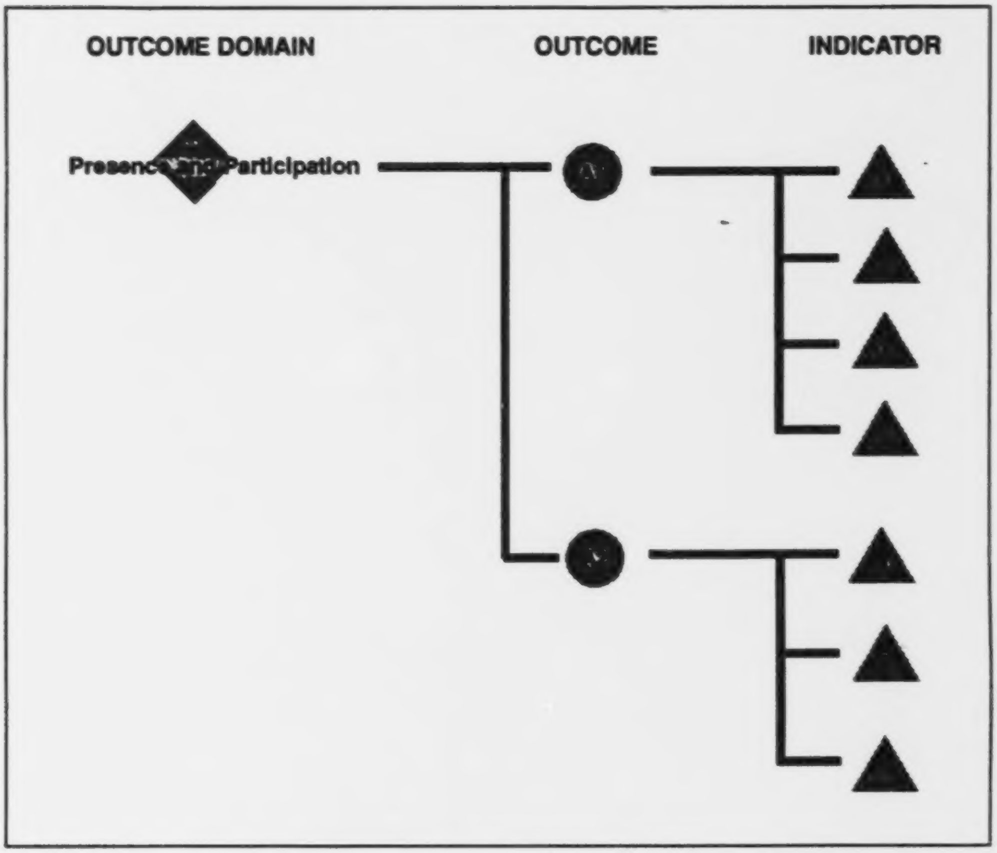

Conceptual Model of Outcomes
◆ = OUTCOME DOMAIN
Resources (Input and Context)
Educational Opportunity and Process
Presence and Participation
Accommodation and Adaptation
Physical Health
Responsibility and Independence
Contribution and Citizenship
Academic and Functional Literacy
Personal and Social Adjustment
Satisfaction

Figure 2. NCEO Outcome Domains and Outcomes for Grade 4

OUTCOME DOMAIN	OUTCOME
A. Presence and Participation	A1. Is present in school A2. Participates in school activities
B. Family Involvement/Accommodation and Adaptation	B1. Uses enrichments, adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains B2. Demonstrates the presence of family support and coping skills
C. Physical Health	C1. Makes healthy lifestyle choices C2. Is aware of basic safety, fitness, and health care needs C3. Is physically fit
D. Responsibility and Independence	D1. Demonstrates age-appropriate independence D2. Gets about in the environment D3. Is responsible for self
E. Contribution and Citizenship	E1. Complies with school and community rules E2. Volunteers
F. Academic and Functional Literacy	F1. Demonstrates competence in communication F2. Demonstrates competence in problem-solving strategies and critical thinking skills F3. Demonstrates competence in math, reading, and writing skills F4. Demonstrates competence in other academic and nonacademic areas F5. Demonstrates competence in using technology
G. Personal and Social Adjustment	G1. Copes effectively with personal challenges, frustrations, and stressors G2. Has good self image G3. Respects cultural and individual differences G4. Gets along with other people
H. Satisfaction	H1. Student satisfaction with school experience H2. Parent/guardian satisfaction with education that student is receiving H3. Community satisfaction with education that student is receiving

Figure 3. Design of Domains, Outcomes, and Indicators in Model


OUTCOME DOMAIN
OUTCOME
INDICATOR
Presence and Participation

Method

The process of matching the educational goals, outcomes, and standards adopted by states to NCEO's list of outcomes and indicators included three distinct stages.

Stage 1: Obtaining State Documents

During the Spring of 1994, we mailed letters to all Commissioners of Education or State Superintendents requesting copies of their state's most recent student outcomes, standards, or goals document(s). In the Summer of 1994, we sent out a second letter to states from which we had not received responses. At this point, we asked nonrespondents to verify whether these documents (a) have not been published at the state level, or (b) are under development. A total of 48 states (including the District of Columbia) responded, either submitting documentation or verifying that the documentation is not available or is currently under development and not available for review. Thirty-six states submitted some type of documentation. Of the states submitting documentation, 30 included information related to goals, outcomes, standards, or indicators that could be compared to the NCEO conceptual model at grade 4.

Stage 2: Selecting Documents to Match at the Grade 4 Level

States have developed various documents related to state articulated education goals, outcomes, and standards. We selected the state documents that most specifically reflected learner goals, objectives or standards, and indictors, without delving into curriculum-level materials or state assessment test items.[1] When states submitted multiple types of documents, we considered them for inclusion in the mapping activity in the following priority order:

1. Statements of learner goals, objectives, outcomes, performance standards, benchmarks, and/or indicators that typically were related to state assessment systems;

2. Statements of curriculum standards or frameworks that include specific statements of learner goals, objectives, performance standards, benchmarks, or indicators;

3. Statements of state education goals;

4. Statements of educational program standards or opportunity-to-learn standards.

Only a few states target educational goals toward specific ages or grades of students. A number of states have a single set of goals that cover kindergarten through grade 12; others have clusters of age or grade related goals (e.g., K-3, 5-8, and 9-12). In many states, the grades or ages included in the cluster vary by subject or domain area.

As a result, two NCEO staff independently reviewed the documents submitted by each state to (1) select the type of document that would be used in the matching activity, and (2) specify the age or grade levels that would be matched to the grade 4 level of the NCEO model. Discrepancies between the reviewers were resolved by group consensus, and/or review by a third individual. The document used as part of the matching activity is listed and briefly described at the beginning of each state list of goals in Chart 4.

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[1] Some of the terms used by States include goals, objectives, outcomes, standards, indicators, or benchmarks. We refer to them generally as state goals.

Stage 3: The Matching Process

NCEO's model is presented in three levels that become increasingly more specific: Domains, Outcomes, and Indicators. Matching was done at each of these levels in Charts 1-3. In addition, we present a listing of each state's goals that we used in the matching process in Chart 4. More specifically, the following sequence was used to complete the matching process.

State Articulated Goals: States' goals were first listed using their format as much as possible (see Chart 4). We then matched the NCEO domains, outcomes, and indicators to these state goals. Matches were first established at the domain level. If the state goal fit within the NCEO domain, a "deeper" match at the outcome and indicators levels was sought. The deepest possible match to the NCEO model is recorded in a space next to the state goal.

The Indicator Level: Using the information from Chart 4, we then reversed the process and matched the state goals to the NCEO model at all three levels: Indicator, Outcome, and Outcome Domain. If possible, matches were made first at the indicator level. If this was not possible, we then looked to match a state goal with an outcome, and then a domain. Chart 3, which shows the results of this process, contains an "X" at the deepest level of match. Thus, when an "X" appears at the domain or outcome level, the match is generally less precise than if it was at the indicator level.

The Outcome Level: If the state has *one or more* goals that fit under one of the NCEO outcomes (at the indicator or outcome levels), we put an "X" in the outcome box and also in the broader domain box (see Chart 2).

The Domain Level: If the state has *one or more* goals that fit under a specific NCEO domain (at any level), an "X" was put in the box for that domain (see Chart 1).

As is often the case in content analyses, the concepts included in state articulated goals do not provide a 1-to-1 correspondence with the concepts included in NCEO's domains, outcomes, or indicators. Thus, several decisions had to made by the reviewers. The following decisions provide an illustration of the reasoning used in the matching process.

The degree of specificity in the states' goals and the NCEO model are not always the same. Since the intent of our review was to examine the overall correspondence between state goals and the NCEO model, we sometimes match specific goals listed in the state document to an NCEO domain. A match with an NCEO domain, therefore, does not necessarily indicate the state has embraced all the NCEO outcomes and indicators within that domain.

The state goals sometimes contained more than one concept and seemed to fall under more than one NCEO domain, outcome, or indicator. In these instances, we matched the state goal to as many domains, outcomes, or indicators as seemed appropriate. Thus, the state goal *Students will participate in problem-solving activities so they can use concrete models to develop an understanding of concepts of addition, subtraction, multiplication, and division* matches to three NCEO outcomes or indicators: (A2a) Percent of time students participate actively in a variety of meaningful learning activities and routines in general education classrooms, (F2a) Percent of students who demonstrate problem-solving and critical thinking skills, and (F3a) Percent of students who demonstrate competence in math to function in home, school, and community environments.

When matching to a grade-specific conceptual model (as we are doing here as we match at the grade 4 level), some ambiguity occurs. State articulated goals that encompass kindergarten through grade 12 typically contain goals not attainable by grade 4. In matching state goals to the NCEO model, we tried to determine whether the antecedents to meeting the state goal were likely to have been addressed in grade 4. For example, the K-12 goal *Students understand the processes and interactions of Earth's systems, and the structure and dynamics of Earth and other objects in space* relies on astronomical information likely to be introduced to fourth grade students; thus it matches to the NCEO outcome: (F4a) Percent of students who demonstrate competence in other academic domains (science, language, geography, social studies) to function in home, school, and community environments.

Finally, NCEO's outcome indicators are written in the form of finding a percent of the number of students that meet a particular indicator. An example of an indicator is *Percent of students who meet individualized standards of physical fitness*. Most state goals are not written using this language. Although the form of measurement for the state goal may not be the same, the two were matched if the same general concept was discussed in both.

General Findings

A number of general trends emerged when state goals were matched to NCEO's model at the outcome domain level. These trends include:

- Almost all states that have articulated goals for grade 4 students (29 out of 30), include statements that correspond to the NCEO domain, Academic and Functional Literacy.
- Between one-half and three-quarters of the states we examined specified goals that correspond to the following NCEO domains:
    - Presence and Participation
    - Physical Health
    - Responsibility and Independence
    - Contribution and Citizenship
    - Personal and Social Adjustment.
- Only two NCEO domains were addressed by fewer than half the states we examined: Accommodation and Adaptation (four of 30 states) and Satisfaction (three of 30 states).

We also matched state goals to the NCEO model at the outcome level. This analysis takes us one step "deeper" (or more specific) into the NCEO model. We examined the general degree of match between states' goals and the overall group of outcomes within each domain. The key question we examined was: To what extent do states identify student goals that correspond to the outcomes specified under each domain of the NCEO model? To answer this question we determined the proportion of states that articulated goals that matched to each outcome in the NCEO model. General findings include:

- More than 75% of the states articulated goals that match each of the outcomes under the domain, Academic and Functional Literacy.
- A moderate proportion (51-75%) articulated goals that corresponded to at least one outcome under the following three domains:
    - Responsibility and Independence (outcome: Demonstrates age-appropriate independence)
    - Contribution and Citizenship (outcome: Complies with school and community rules)

  - Personal and Social Adjustment (outcomes: Has good self image, Respects Cultural and individual differences, Gets along with other people)

- Generally there was less of a match (26-50%) with the outcomes within the domain, Contribution and Citizenship.

- Very few states (fewer than 25%) articulated goals that corresponded to outcomes under the following NCEO domains:

  - Accommodation and Adaptation
  - Satisfaction

Given the poor correspondence at the domain level, this lack of correspondence at the outcome level was not surprising.

The NCEO model includes a number of indicators for each outcome statement. We grouped states in terms of degree of correspondence of goals with NCEO indicators. Strong matches represent more than 75% of the states. Moderate matches represent 51-75% of the states, while weaker matches represent fewer than 50% of the states. General findings include:

- Of the 59 indicators suggested by the NCEO model, four indicators were strongly matched, six indicators were moderately matched, 43 indicators were weakly matched, and six indicators were not matched to any state's goals.

- All of the strong matches occurred under the Academic and Functional Literacy domain within the outcomes of:

- Demonstrates competence in problem-solving
- Demonstrates competence in math, reading and writing skills
- Demonstrates competence in other academic or nonacademic areas
- Demonstrates competence in using technology

The general overall weakness of correspondence between NCEO indicators and state goals may be due more to the level of specificity being used by states than to a lack of conceptual congruence.

Reference

Vanderwood, M.L., & Ysseldyke, J.E. (1993). Consensus building: A process for selecting educational outcomes and indicators (Outcomes and Indicators Number 2). Minneapolis, MN: National Center on Educational Outcomes.

States Included in the Grade 4 Matching

AR	Arkansas
CA	California
CO	Colorado
DE	Delaware
DC	District of Columbia
FL	Florida
HI	Hawaii
ID	Idaho
IL	Illinois
IN	Indiana
KS	Kansas
KY	Kentucky
MD	Maryland
MI	Michigan
MT	Montana
NE	Nebraska
NH	New Hampshire
NM	New Mexico
NY	New York
NC	North Carolina
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
SC	South Carolina
SD	South Dakota
UT	Utah
VA	Virginia
WA	Washington
WV	West Virginia

Chart 1. State Matching to NCEO Model Outcome Domains

	OUTCOME DOMAIN							
STATE	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
AR	X			X		X	X	
CA			X	X	X	X	X	
CO				X		X		
DE				X		X	X	
DC	X	X	X					
FL	X	X	X	X	X	X	X	X
HI	X		X	X	X	X	X	
ID	X			X		X	X	
IL						X		
IN	X	X		X		X	X	X
KS			X	X	X	X	X	
KY			X	X	X	X	X	
MD	X		X	X	X	X	X	
MI			X	X	X	X	X	X
MT		X	X	X	X	X	X	
NE					X	X		
NH	X				X	X		
NM	X		X	X	X	X	X	
NY	X		X	X	X	X	X	
NC	X			X		X		
OH						X		
OK			X		X	X	X	
OR			X	X	X	X	X	
PA			X	X	X	X	X	
SC						X	X	
SD						X		
UT	X		X	X	X	X	X	
VA	X					X		
WA	X		X	X	X	X	X	
WV	X		X	X	X	X	X	

KEY:

A. Presence and Participation
B. Family Involvement/Accommodation and Adaptation
C. Physical Health
D. Responsibility and Independence
E. Contribution and Citizenship
F. Academic and Functional Literacy
G. Personal and Social Adjustment
H. Satisfaction

Chart 2. State Matching to NCEO Model Outcome Domains and Outcomes

NCEO DOMAINS AND OUTCOMES	< 25%	25 - 50%	51 -75%	> 75%
A. Presence and Participation		X		
1. Is present in school	X			
2. Participates in group activities		X		
B. Family Involvement/Accommodation and Adaptation	X			
1. Uses enrichments, adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains	X			
2. Demonstrates the presence of family support and coping skills	X			
C. Physical Health			X	
1. Makes healthy lifestyle choices		X		
2. Is aware of basic safety, fitness, and health care needs		X		
3. Is physically fit		X		
D. Responsibility and Independence			X	
1. Demonstrates age-appropriate independence			X	
2. Gets about in the environment	X			
3. Is responsible for self		X		
E. Contribution and Citizenship			X	
1. Complies with school and community rules			X	
2. volunteers	X			
F. Academic and Functional Literacy				X
1. Demonstrates competence in communication				X
2. Demonstrates competence in problem solving strategies and critical thinking skills				X
3. Demonstrates competence in math, reading, and writing skills				X
4. Demonstrates competence in other academic and nonacademic areas				X
5. Demonstrates competence in using technology				X
G. Personal and Social Adjustment				X
1. Copes effectively with personal challenges, frustrations, and stressors		X		
2. Has good self-image			X	
3. Respects cultural and individual differences			X	
4. Gets along with other people			X	
H. Satisfaction	X			
1. Student satisfaction with school experience	X			
2. Parent/guardian satisfaction with the education that student is receiving	X			
3. Community satisfaction with education that student is receiving	X			

Chart 3. State Matching to NCEO Outcome Domains, Outcomes and Indicators

NCEO DOMAINS, OUTCOMES AND INDICATORS	AR	CA	CO	DE	DC	FL	HI	ID	IL	IN	KS	KY	MD	MI	MT	NE	NH	NM	NY	NC	OH	OK	OR	PA	SC	SD	UT	VA	WA	WV
A. Presence and Participation																														
1. Is present in school						X											X											X		
a. Rate of absenteeism during school year (differentiated for reasons of suspension, medical/health, truancy, and other					X	X				X							X											X		
b. Percent of students excluded from their typical school placement						X											X													
c. Percent of students attending specific settings (for example separate schools, residential settings, and homebound)						X																								
2. Participates in school activities																														
a. Percent of time students participate actively in a variety of meaningful learning activities and routines in general education classrooms	X					X	X	X		X									X	X							X	X	X	X
b. Percent of time students participate actively in extracurricular activities during school year					X													X										X		
c. Percent of students who participate in district, state, and national testing programs (including alternative testing programs)																	X											X		
d. Percent of students who move between school settings during the year (mobility rate)																														
B. Family Involvement/Accommodation and Adaptation																														
1. Uses enrichments, adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains										X																				
a. Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to get around in their environments										X																				
b. Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to communicate																														
c. Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to read (or receive information from materials usually printed) and/or perform other academic skills																														
d. Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to participate in activities in home, school, and community environments										X																				
e. Percent of students who demonstrate successful enrichments, adaptations, accommodations, or compensation skills required to manage personal needs in home, school, and community environments										X																				

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NCEO DOMAINS, OUTCOMES AND INDICATORS	AR	CA	CO	DE	DC	FL	HI	ID	IL	IN	KS	KY	MD	MI	MT	NE	NH	NM	NY	NC	OH	OK	OR	PA	SC	SD	UT	VA	WA	WV
2. Demonstrates the presence of family support and coping skills																														
a. Percent of families using community resources and programs needed by students															X															
b. Percent of families participating in the education of their children					X	X																								
c. Percent of families providing environments supportive of their children's education and learning																														
C. Physical Health		X																						X						
1. Makes healthy lifestyle choices		X				X	X				X	X			X			X	X			X	X	X			X		X	
a. Percent of students who are aware of nutritional choices											X							X				X		X						X
b. Percent of students who participate regularly in sports, recreational, or exercise activities							X					X			X			X				X		X						X
2. Is aware of basic safety, fitness, and health care needs		X					X				X	X			X			X	X			X	X	X			X		X	X
a. Percent of students who are aware of basic safety precautions and procedures											X			X	X			X				X	X				X			X
b. Percent of students who are aware of basic fitness needs												X						X				X		X						X
c. Percent of students who are aware of basic health care needs		X					X								X			X				X	X	X			X			X
d. Percent of students who are aware of dangers of use and abuse of tobacco, alcohol, drugs, poisons, and medicines						X	X								X			X	X			X	X	X			X			X
3. Is physically fit		X					X					X											X							X
a. Percent of students who meet individualized standards of physical fitness					X		X					X			X			X				X	X	X						X
D. Responsibility and Independence	X	X					X					X	X	X	X			X	X	X			X	X			X			
1. Demonstrates age-appropriate independence						X	X								X															
a. Percent of students who act responsibly in a family, group, or individual situation			X			X	X				X	X	X	X	X			X	X					X			X		X	X
b. Percent of students who initiate and follow through on activities				X		X	X	X		X	X	X		X	X			X	X										X	X
2. Gets about in the environment																														
a. Percent of students who can get to and from a variety of destinations																														
b. Percent of students who have an emerging awareness of the larger community							X								X														X	
3. Is responsible for self								X			X	X			X			X						X						
a. Percent of students who can attend to their own hygiene needs														X																X
b. Percent of students who can take care of their own belongings																														
c. Percent of students who begin to look to others for support																							X							
E. Contribution and Citizenship		X									X		X	X	X				X					X			X		X	X
1. Complies with school and community rules						X	X							X	X				X										X	X
a. Percent of students who are beginning to act as responsible citizens (for example, recycling, helping each other, caring about the environment, respecting property)		X					X				X	X	X	X	X	X		X	X				X	X					X	X

NCEO DOMAINS, OUTCOMES AND INDICATORS	AR	CA	CO	DE	DC	FL	HI	ID	IL	IN	KS	KY	MD	MI	MT	NE	NH	NM	NY	NC	OH	OK	OR	PA	SC	SD	UT	VA	WA	WV
b. Percent of students who have been repeatedly suspended or subjected to disciplinary actions																	X													
c. Percent of students who have an understanding of work roles and responsibilities as students and citizens		X					X					X	X	X				X	X			X	X	X					X	X
2. Volunteers																														
a. Percent of students who participate in school and classroom governance activities							X							X	X															
b. Percent of students who use their interests and abilities to benefit others and contribute to the group					X						X			X				X	X											
F. Academic and Functional Literacy				X			X					X											X							
1. Demonstrates competence in communication	X					X	X							X	X			X	X	X		X	X	X	X	X	X		X	X
a. Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X			X			X	X	X			X		X	X
2. Demonstrates competence in problem-solving strategies and critical thinking skills	X	X					X																							
a. Percent of students who demonstrate problem-solving and critical thinking skills	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X
3. Demonstrates competence in math, reading, and writing skills											X						X													
a. Percent of students who demonstrate competence in math to function in home school, and community environments	X	X	X		X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
b. Percent of students who demonstrate competence in reading to function in home school, and community environments	X			X			X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X			X		X	X
c. Percent of students who demonstrate competence in writing to function in home, school, and community environments	X	X	X	X		X		X	X	X	X		X	X	X			X	X	X	X	X	X	X			X			X
4. Demonstrates competence in other academic and nonacademic areas	X	X		X		X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	X	X		X	X		X
a. Percent of students who demonstrate competence in other academic domains (science, language, geography, social studies) to function in home, school, and community environments	X	X	X	X			X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X
b. Percent of students who demonstrate competence in cultural domains (fine and performing arts) to function in home, school, and community environments	X			X			X			X	X	X		X	X	X		X	X	X	X	X	X	X	X		X		X	X
5. Demonstrates competence in using technology	X																													
a. Percent of students who apply technology to enhance functioning in home, school, and community environments	X			X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X
G. Personal and Social Adjustment		X					X				X	X						X	X			X	X				X			
1. Copes effectively with personal challenges, frustrations, and stressors								X				X						X					X							X
a. Percent of students who deal appropriately with frustration and unfavorable events											X		X																	

NCEO DOMAINS, OUTCOMES AND INDICATORS	AR	CA	CO	DE	DC	FL	HI	ID	IL	IN	KS	KY	MD	MI	MT	NE	NH	NM	NY	NC	OH	OK	OR	PA	SC	SD	UT	VA	WA	WV
b. Percent of students who express feelings and needs in socially acceptable ways										X	X												X							
c. Percent of students whose behavior reflects an appropriate degree of self-control												X										X							X	
2. Has good self-image		X				X	X			X		X	X	X	X			X												X
a. Percent of students who perceive themselves as worthwhile							X	X					X	X	X			X	X				X	X					X	
b. Percent of students who perceive themselves as competent				X			X				X	X		X	X			X	X				X	X	X		X			X
c. Percent of children who demonstrate knowledge of and acknowledge their own limitations								X						X				X									X			
3. Respects cultural and individual differences	X	X										X		X				X					X	X					X	
a. Percent of students who respect and show concern for others		X				X	X	X		X	X	X	X	X	X			X	X								X		X	X
b. Percent of students who accept cultural, racial, ability, and family differences	X			X		X	X	X		X	X	X	X	X	X			X	X				X		X				X	X
c. Percent of students who participate in making the community welcoming and inclusive of diversity						X		X				X		X																
4. Gets along with other people	X	X					X			X	X	X		X				X				X	X	X			X		X	
a. Percent of students who have friends their own age and are part of a social network						X									X															
b. Percent of students who can work cooperatively		X				X	X	X		X	X	X	X	X	X			X	X				X	X	X		X		X	X
H. Satisfaction										X																				
1. Student satisfaction with school experience						X								X																
a. Percent of students who enjoy learning and are satisfied with their school accomplishments						X				X																				
b. Percent of students who indicate they receive what they need to be successful										X																				
2. Parent/guardian satisfaction with education student is receiving						X				X																				
a. Percent of parents/guardians who are satisfied with their students' level of accomplishment in academic and social areas																														
b. Percent of parents/guardians who are satisfied with what is being provided in school (curriculum, extracurricular, teaching, and supports)										X																				
3. Community satisfaction with education that student is receiving										X																				
a. Percent of community (teachers, policymakers, employers, general public) satisfied with students' accomplishments						X				X																				
b. Percent of community (teachers, policymakers, employers, general public) satisfied with what is being provided in school (curriculum, extracurricular, teaching, and supports)										X																				

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NCEO DOMAINS, OUTCOMES AND INDICATORS	AR	CA	CO	DE	DC	FL	HI	ID	IL	IN	KS	KY	MD	MI	MT	NE	NH	NM	NY	NC	OH	OK	OR	PA	SC	SD	UT	VA	WA	WV
b. Percent of students who have been repeatedly suspended or subjected to disciplinary actions																	X													
c. Percent of students who have an understanding of work roles and responsibilities as students and citizens		X					X					X	X	X				X	X			X	X	X					X	X
2. Volunteers																														
a. Percent of students who participate in school and classroom governance activities							X							X	X															
b. Percent of students who use their interests and abilities to benefit others and contribute to the group					X						X			X				X	X											
F. Academic and Functional Literacy				X			X					X											X							
1. Demonstrates competence in communication	X					X	X							X	X			X	X	X		X	X	X	X	X	X		X	X
a. Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X			X			X	X	X			X		X	X
2. Demonstrates competence in problem-solving strategies and critical thinking skills	X	X					X																							
a. Percent of students who demonstrate problem-solving and critical thinking skills	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X
3. Demonstrates competence in math, reading, and writing skills											X						X													
a. Percent of students who demonstrate competence in math to function in home school, and community environments	X	X	X		X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
b. Percent of students who demonstrate competence in reading to function in home school, and community environments	X			X			X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X			X		X	X
c. Percent of students who demonstrate competence in writing to function in home, school, and community environments	X	X	X	X		X		X	X	X	X		X	X	X			X	X	X	X	X	X	X			X			X
4. Demonstrates competence in other academic and nonacademic areas	X	X		X		X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	X	X		X	X		X
a. Percent of students who demonstrate competence in other academic domains (science, language, geography, social studies) to function in home, school, and community environments	X	X	X	X			X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X
b. Percent of students who demonstrate competence in cultural domains (fine and performing arts) to function in home, school, and community environments	X			X			X			X	X	X		X	X	X		X	X	X	X	X	X	X	X		X		X	X
5. Demonstrates competence in using technology	X																													
a. Percent of students who apply technology to enhance functioning in home, school, and community environments	X			X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X
G. Personal and Social Adjustment		X					X				X	X						X	X			X	X				X			
1. Copes effectively with personal challenges, frustrations, and stressors								X				X						X					X							X
a. Percent of students who deal appropriately with frustration and unfavorable events											X		X																	

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Documents Utilized

Draft of the Arkansas Foreign Language Curriculum Framework (September, 1993)
The Arkansas English Language Arts and Mathematics Curriculum Frameworks (1993 edition)
Draft of the Arkansas Reading Curriculum Framework (September, 1993)
Arkansas Science Curriculum Framework (1994)

Background

In 1991, the Arkansas General Assembly passed Act 236, which calls for schools to make curriculum changes that emphasize teaching students to think. In accordance to Act 236, the Arkansas Department of Education has developed curriculum frameworks that specify specific learner outcomes which are developed within particular subject areas. Frameworks describe student learning for K-4, 5-8, and 9-12. These curriculum frameworks are the basis for state-level assessments of schools.

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	NCEO CODE
FOREIGN LANGUAGE	
Strand 1: LISTENING	
Content Standard: Students will listen to a variety of materials for comprehension, response, evaluation, and enjoyment.	F4a
1.1 Student Learning Expectations	
1. Distinguish sounds and sound patterns for meaning.	F1a
2. Recognize and respond to learned vocabulary.	F1
3. Acquire a new vocabulary in context.	F1
4. Comprehend short authentic passages.	F1a
5. Listen to the language spoken by a variety of native speakers.	F1
6. Understand predictable questions and commands in familiar topic areas.	F1a
7. Listen for a variety of purposes.	F1
Strand 2: SPEAKING	
Content Standard: Students will speak the language at appropriate levels of proficiency in a variety of situations.	F1
2.1 Student Learning Expectations	
1. Pronounce sounds, words, and phrases with correct intonation.	F1a
2. Use appropriate gestures to accompany speech.	F1
3. Ask and answer questions.	F1
4. Describe situations.	F1a
5. Use expressions needed for everyday situations.	F1a
6. Speak for a variety of purposes.	F1a
7. Exhibit confidence as a speaker through frequent and effective use of the language.	F1
Strand 3: READING	
Content Standard: Students will read a variety of materials for comprehension, response, evaluation, and enjoyment.	F3b
3.1 Student Learning Expectations	
1. Recognize and associate letters and sounds.	F3b
2. Identify cognates.	F3b
3. Identify isolated words and phrases in context.	F3b
4. Listen and respond to stories.	F1, F3b
5. Expand vocabulary through reading.	F3b
6. Use prior knowledge to extend reading and comprehension.	F3b

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7. Read individually and in groups.	F3b
8. Use reading to enhance writing.	F3b, F3c
9. Read original directed writings.	F3b
10. Read for pleasure.	F3b
Strand 4: WRITING	
Content Standard: Students will write effectively in different modes of discourse using process writing.	F3c
4.1 Student Learning Expectations	
1. Copy alphabet and familiar words.	F3c
2. List, identify, and label items.	F3c
3. Complete sentences.	F3c
4. Create questions, responses, and commands.	F3c
5. Create and dictate, individually and as a group, descriptive and narrative paragraphs.	F3c
6. Write basic descriptions and narrations.	F3c
Content Standard 2: Students will develop written products that are structurally correct.	F3c
4.2 Student Learning Expectations	
1. Learn to capitalize.	F3c
2. Write sentences.	F3c
3. Copy corrected sentences.	F3c
4. Develop grammatically correct statements, questions, and commands.	F3c
Strand 5: CULTURE	
Content Standard 1: Students will recognize, appreciate, and respond to the special characteristics, contributions, and traditions of the target culture.	G3
5.1 Student Learning Expectations	
1. Recognize that to be different is not necessarily to be better or worse.	G3b
2. Understand that social variables such as age, gender, and social class affect the way people speak and behave.	G3
3. Recognize that there is a set of behaviors unique to a particular culture.	G3b
4. Recognize the effect of work and leisure on the culture.	no match
5. Realize that gestures and body language are important components of communication, and that what is acceptable in one culture may be misunderstood in another.	no match
6. Realize that the concepts of time and space vary from culture to culture.	no match
Content Standard 2: Students will acquire a knowledge of and appreciation for the arts, history, geography, and social structure of other countries.	F4a
5.2 Student Learning Expectations	
1. Listen to and respond to fairy tales and folk tales.	F4a
2. Participate in folk songs and folk dances.	F4b
3. Learn the traditions of holiday and festival celebrations.	F4a
4. Become familiar with various geographical regions where the target language is spoken.	F4a
READING	
Strand 1: READING KNOWLEDGE	
Content Standard: Students will use knowledge of the reading process as they construct meaning through the interaction of a variety of reader, text, and contextual conditions.	F3b
1.1 Student Learning Expectations	
1. Know that the goal of reading is constructing meaning.	F3b
2. Know there are relationships between written and oral language.	F3b
3. Know that the reader's prior knowledge influences the meaning the reader gains from the text.	F, F3b
4. Know that reading is communication between the author and the reader.	F3b
5. Know reading strategies are tools for constructing meaning, thinking critically, and solving	F3b

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problems.	
6. Know that features, structures, and types of text influence reading.	F3b
7. Know that different environments, tasks, and purposes influence reading.	F3b
8. Know that critical thinking broadens and deepens the understanding of what is read.	F3b
9. Know that different cultures, eras, and ideas influence reading.	F3b
10. Know that the reader, text, and context interact to influence reading.	F3b
Strand 2: READING BEHAVIOR	
Content Standard: Students will use appropriate strategies to monitor and direct their reading. They will construct, examine, extend, and evaluate meaning from a variety of sources, for a variety of purposes and in a variety of contexts.	F3b
2.1 Student Learning Expectations	
1. Demonstrate understanding of the relationship between written and oral language.	F3b
2. Demonstrate an understanding of the concepts of print (e.g., directionality, spacing, punctuation, etc.).	F3b
3. Use print to go about daily activities (e.g., following directions, using references, etc.).	F3b
4. Establish purposes for reading (e.g., enjoyment, learning, etc.).	F3b
5. Use major cueing systems to decode and construct meaning (e.g., phonetic, syntactic, and semantic).	F3b
6. Expand vocabulary through reading.	F3b
7. Develop fluency in both silent and oral reading.	F3b
8. Use prior knowledge to extend reading ability (e.g., word recognition and comprehension).	F3b
9. Use a variety of word recognition strategies as needed (e.g., reread sentence, read to end of a sentence, etc.).	F3b
10. Use a variety of strategies to aid comprehension, self-questioning, predicting, etc.	F3b
11. Demonstrate knowledge of different types of texts (e.g., expository and narrative).	F3b
12. Use critical thinking and problem solving strategies to integrate content from all subject matter areas.	F2a, F3b
13. Use strategies for visual organization of information (e.g., story maps, semantic mapping, charts, etc.).	F3b
14. Read independently and with others daily (e.g., sustained silent reading, shared reading, partner reading).	F3b
15. Select appropriate resource material from a variety of sources (e.g., library media centers, community and home).	F3b
16. Read and listen to a variety of literary genres from diverse cultures.	F3b
17. Respond to reading in a variety of ways (e.g., writing, retelling, art, drama, etc.).	F3b
18. Experiment with creative and playful language (e.g., text innovations, choral reading, etc.).	F3b
19. Use reading to enhance writing.	F3b
20. Use technological aids to support growth in reading.	F3b, F5
Strand 3: READING DISPOSITIONS	
Content Standard: Students will demonstrate a willingness to use reading to continue to learn, to communicate, and to solve problems.	F1, F2, F3b
3.1 Student Learning Expectations	
1. Value reading.	F3b
2. Develop a positive attitude toward reading and toward themselves as readers.	F3b, G2b
3. Enjoy reading and listening to a variety of texts.	F3b
4. Choose to read a variety of materials for a variety of purposes.	F3b
5. Self-select reading materials from libraries and other sources.	F3b
6. Experience a personal response to materials read.	F3b
7. Initiate and participate in conversations about reading.	F3b
8. Use reading to achieve goals outside the classroom.	F3b
9. Choose reading to satisfy, extend, and expand personal interests.	F3b
10. Choose reading as an information-gathering tool to develop informed opinions and make decisions.	F3b

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7. Read individually and in groups.	F3b
8. Use reading to enhance writing.	F3b, F3c
9. Read original directed writings.	F3b
10. Read for pleasure.	F3b
Strand 4: WRITING	
Content Standard: Students will write effectively in different modes of discourse using process writing.	F3c
4.1 Student Learning Expectations	
1. Copy alphabet and familiar words.	F3c
2. List, identify, and label items.	F3c
3. Complete sentences.	F3c
4. Create questions, responses, and commands.	F3c
5. Create and dictate, individually and as a group, descriptive and narrative paragraphs.	F3c
6. Write basic descriptions and narrations.	F3c
Content Standard 2: Students will develop written products that are structurally correct.	F3c
4.2 Student Learning Expectations	
1. Learn to capitalize.	F3c
2. Write sentences.	F3c
3. Copy corrected sentences.	F3c
4. Develop grammatically correct statements, questions, and commands.	F3c
Strand 5: CULTURE	
Content Standard 1: Students will recognize, appreciate, and respond to the special characteristics, contributions, and traditions of the target culture.	G3
5.1 Student Learning Expectations	
1. Recognize that to be different is not necessarily to be better or worse.	G3b
2. Understand that social variables such as age, gender, and social class affect the way people speak and behave.	G3
3. Recognize that there is a set of behaviors unique to a particular culture.	G3b
4. Recognize the effect of work and leisure on the culture.	no match
5. Realize that gestures and body language are important components of communication, and that what is acceptable in one culture may be misunderstood in another.	no match
6. Realize that the concepts of time and space vary from culture to culture.	no match
Content Standard 2: Students will acquire a knowledge of and appreciation for the arts, history, geography, and social structure of other countries.	F4a
5.2 Student Learning Expectations	
1. Listen to and respond to fairy tales and folk tales.	F4a
2. Participate in folk songs and folk dances.	F4b
3. Learn the traditions of holiday and festival celebrations.	F4a
4. Become familiar with various geographical regions where the target language is spoken.	F4a
READING	
Strand 1: READING KNOWLEDGE	
Content Standard: Students will use knowledge of the reading process as they construct meaning through the interaction of a variety of reader, text, and contextual conditions.	F3b
1.1 Student Learning Expectations	
1. Know that the goal of reading is constructing meaning.	F3b
2. Know there are relationships between written and oral language.	F3b
3. Know that the reader's prior knowledge influences the meaning the reader gains from the text.	F, F3b
4. Know that reading is communication between the author and the reader.	F3b
5. Know reading strategies are tools for constructing meaning, thinking critically, and solving	F3b

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6. Understand that plants and animals have features that help them live in different environments.	F4a
7. Identify and describe the relationships of familiar organisms in a food chain or food web.	F4a
8. Explore common patterns of interdependence and interrelationships of organisms.	F4a
9. Describe use and misuse of the environment by humans.	F4a
Strand 5: Earth/Space Systems	
Content Standard: Students will explore, demonstrate, communicate, apply and evaluate knowledge of the properties of earth and space systems.	F4a
5.1 Student Learning Expectations	
1. Recognize and classify different types of earth materials.	F4a
2. Describe major features of the earth's surface and how it is affected by natural changes.	F4a
3. Identify the physiographic regions of Arkansas.	F4a
4. Explore seasonal changes in weather and factors which affect weather conditions.	F4a
5. Trace the path that water follows after it falls.	F4a
6. Describe the water cycle.	F4a
7. Understand and appreciate the uses of water.	F4a
8. Explore land forms in the ocean and how they change.	F4a
9. Explore and model the features and motions of the sun, moon, earth, and other celestial bodies.	F4a
10. Describe uses and conservation of materials taken from the earth.	F4a
LANGUAGE ARTS	
ENGLISH FRAMEWORKS	
Strand 1: Writing	
Content Standard 1: Students will use writing as a means of exploring thought and as a process involving prewriting activities, drafting, receiving, feedback, revising, editing, and post-writing activities, including evaluating, publishing, and displaying.	F3c
1.1 Student Learning Expectations	
1. Move from visual and spoken experiences to written language through positive modeling.	F3c
2. Understand the relationship between letters and words, words and sentences, sentences and paragraphs, and paragraphs and whole pieces.	F3c
3. Follow patterns from predictable books, poems, stories.	F3c
4. Use individual and collective strategies for finding and developing ideas about which to write.	F3c
5. Write from experiences, thoughts, and feelings.	F3c
6. Write in one or more subject areas daily.	F3c
7. Write independently on self-selected topics.	F3c
8. Write for uninterrupted periods of time.	F3c
9. Write with others.	F3c
10. Appreciate and express cultural diversity in writing.	F3c
11. Respect the points of view and writing of others.	F3c
12. Use the responses of others to review writing for clarity, style, and content.	F3c
13. Monitor progress of self and others.	F3c
14. Use computers and other available technology to write and revise texts.	F3c
15. Publish writing in a variety of ways such as class anthologies, public readings, newsletters, newspapers, bulletin boards, sharing with others, books.	F3c
Content Standard 2: Students with appropriate instruction will write in different modes of discourse for a variety of audiences and purposes.	F3c
1.2 Student Learning Expectations	
1. Write a variety of modes such as notes, stories, poems, letters, interview, journals.	F3c
2. Write for a variety of audiences such as peers, parents, teachers, community.	F3c

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3. Write for a variety of purposes such as to persuade, enjoy, entertain, learn, inform, record, respond to reading, solve problems.	F3c
Content Standard 3: Students will develop final written products which conform to conventional standards.	D, F3c
1.3 Student Learning Expectations	
1. Accept responsibility for completing writing tasks.	F3c
2. Edit writing for developmentally appropriate spelling, usage, mechanics, grammar, vocabulary, and handwriting.	F3c
3. Develop a collection of writings.	F3c
Strand 2: READING	
Content Standard 1: All students will read to comprehend, respond to, evaluate, and appreciate works of literature and other kinds of writing which reflect their own cultures and viewpoints as well as those of others.	F3b
2.1 Student Learning Expectations	
1. Listen and respond to whole texts in a variety of literary genres from diverse cultures.	F3b
2. Understand and use print concepts such as directionality, spacing, and configuration in developmentally appropriate ways.	F3b
3. Establish purposes for reading such as enjoying, learning, modeling, sharing, performing, investigating, and solving problems.	F3b
4. Recognize and associate letters and sounds.	F3b
5. Use knowledge of letter and sound correspondences to decode words.	F3b
6. Use relationships between words and sentences, sentences and paragraphs, and paragraphs and whole pieces to understand texts.	F3b
7. Use phonetic, syntactic, and contextual clues to construct meaning.	F3b
8. Use prior knowledge to extend reading ability and comprehension.	F3b
9. Use specific strategies such as making comparisons, predicting outcomes, drawing conclusions, identifying the main ideas, understanding cause and effect to comprehend a variety of literary genres from diverse cultures and time periods.	F3b
10. Understand that texts have different purposes such as persuading, informing, entertaining, and instructing.	F3b
11. Read for uninterrupted periods of time daily.	F3b
12. Read with others.	F3b
13. Expand vocabulary through reading.	F3b
14. Use reading to enhance writing.	F3b
15. Select appropriate reading material from library media centers.	F3b
16. Read more than one work by a single author.	F3b
17. Use strategies such as keeping reading logs, conferences with teacher, discussions with other readers, for monitoring progress in reading.	F3b
Content Standard 2: Students will read independently for a wide range of goals and purposes.	F3b
2.2 Student Learning Expectations	
1. Read for personal reasons such as pleasure, to model, for information, to arrive at specific answers to self-generated questions.	F3b
2. Select their own reading materials such as newspapers, magazines, and reference materials from libraries and other sources.	F3b
3. Initiate and participate in conversations about reading.	F3b
4. Re-read to revise understanding of written texts.	F3b
5. Use reading to achieve goals outside the classroom.	F3b
6. Use reading skills to understand other media such as television and film.	F3b
Strand 3: SPEAKING	
Content Standard 1: Students will develop communication skills through a variety of formal and informal speaking opportunities which are integrated into the language arts curriculum.	F1a
3.1 Student Learning Expectations	

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1. Share ideas in discussion, conversation, and presentation.	F1a
2. Respond to the thoughts and feelings of others in culturally appreciative ways.	F1a, G3b
3. Contribute to class and small group discussions.	A2a
4. Express thoughts and feelings in complete sentences.	F1a
5. Tell and retell stories from writing, reading, and pictures.	F1a
6. Participate in collaborative speaking activities such as choral reading, plays, reciting poems	F1a
7. Read orally with meaning and expression.	F1a
8. Give directions.	F1a
9. Make and respond to introductions.	F1a
10. Summarize and paraphrase ideas of others.	F1a
11. Talk with others to solve and resolve problems.	F1a, G4
12. Use available technology to enhance and evaluate oral performances and presentations.	F1a, F5a
13. Participate in discussions by alternating the roles of speaker and listener.	F1a
14. Present work completed in subject areas to large and small groups in and out of the classroom for appreciation and discussions.	F1a
15. Talk about current events.	F1a
Content Standard 2: Students will develop organizational strategies and oral usage appropriate to a variety of situations.	F1a
3.2 Student Learning Expectations	
1. Speak to a variety of audiences in a variety of places for a variety of reasons.	F1a
2. Recognize when audiences do not understand the message and adapt speaking to clarify.	F1a
3. Use grammatical forms appropriate to particular audiences.	F1a
4. Use clear, concise, organized language in speaking situations.	F1a
5. Give immediate, respectful, detailed feedback to a variety of speakers.	F1a
6. Receive and use constructive feedback to improve speaking abilities.	F1a
Strand 4: LISTENING	
Content Standard: Students will learn in meaningful contexts the listening skills they need to succeed academically, socially, and professionally.	F1a
4.1 Student Learning Expectations	
1. Listen for a variety of purposes such as enjoyment, information, and details.	F1a
2. Listen to discriminate sounds.	F1a
3. Listen courteously to a variety of speakers.	F1a
4. Listen selectively and attentively.	F1a
5. Listen to reinforce and extend learning through the use of technology.	F1a
6. Listen to improve reading, oral, and written performance.	F1a
7. Develop strategies such as asking relevant questions, taking notes, and making predictions for understanding what is heard.	F1a
8. Listen to follow directions sequentially.	F1a
9. Appreciate and respond to artistic performances, both verbal and musical.	F1a
MATHEMATICS	
Strand 1: NUMBER SENSE, PROPERTIES, AND OPERATIONS	
Content Standard 1: The student will understand properties of numbers and operations.	F3a
1.1 Student Learning Expectations	
1. Construct number meanings through real-world experiences using manipulatives.	F3a
2. Develop meaning for the operations by modeling and discussing a variety of problem situations.	F3a
3. Apply and master counting, grouping, and place value.	F3a
4. Relate the mathematical language and symbolism of operations to problem situations and to informal language.	F3a
5. Develop competency with whole number computation with and without technology.	F3a
6. Explore rational numbers.	F3a

Arkansas

	NCEO CODE
3. Write for a variety of purposes such as to persuade, enjoy, entertain, learn, inform, record, respond to reading, solve problems.	F3c
Content Standard 3: Students will develop final written products which conform to conventional standards.	D, F3c
1.3 Student Learning Expectations	
1. Accept responsibility for completing writing tasks.	F3c
2. Edit writing for developmentally appropriate spelling, usage, mechanics, grammar, vocabulary, and handwriting.	F3c
3. Develop a collection of writings.	F3c
Strand 2: READING	
Content Standard 1: All students will read to comprehend, respond to, evaluate, and appreciate works of literature and other kinds of writing which reflect their own cultures and viewpoints as well as those of others.	F3b
2.1 Student Learning Expectations	
1. Listen and respond to whole texts in a variety of literary genres from diverse cultures.	F3b
2. Understand and use print concepts such as directionality, spacing, and configuration in developmentally appropriate ways.	F3b
3. Establish purposes for reading such as enjoying, learning, modeling, sharing, performing, investigating, and solving problems.	F3b
4. Recognize and associate letters and sounds.	F3b
5. Use knowledge of letter and sound correspondences to decode words.	F3b
6. Use relationships between words and sentences, sentences and paragraphs, and paragraphs and whole pieces to understand texts.	F3b
7. Use phonetic, syntactic, and contextual clues to construct meaning.	F3b
8. Use prior knowledge to extend reading ability and comprehension.	F3b
9. Use specific strategies such as making comparisons, predicting outcomes, drawing conclusions, identifying the main ideas, understanding cause and effect to comprehend a variety of literary genres from diverse cultures and time periods.	F3b
10. Understand that texts have different purposes such as persuading, informing, entertaining, and instructing.	F3b
11. Read for uninterrupted periods of time daily.	F3b
12. Read with others.	F3b
13. Expand vocabulary through reading.	F3b
14. Use reading to enhance writing.	F3b
15. Select appropriate reading material from library media centers.	F3b
16. Read more than one work by a single author.	F3b
17. Use strategies such as keeping reading logs, conferences with teacher, discussions with other readers, for monitoring progress in reading.	F3b
Content Standard 2: Students will read independently for a wide range of goals and purposes.	F3b
2.2 Student Learning Expectations	
1. Read for personal reasons such as pleasure, to model, for information, to arrive at specific answers to self-generated questions.	F3b
2. Select their own reading materials such as newspapers, magazines, and reference materials from libraries and other sources.	F3b
3. Initiate and participate in conversations about reading.	F3b
4. Re-read to revise understanding of written texts.	F3b
5. Use reading to achieve goals outside the classroom.	F3b
6. Use reading skills to understand other media such as television and film.	F3b
Strand 3: SPEAKING	
Content Standard 1: Students will develop communication skills through a variety of formal and informal speaking opportunities which are integrated into the language arts curriculum.	F1a
3.1 Student Learning Expectations	

Arkansas

	NCEO CODE
1. Recognize the need to collect data.	F3a
2. Collect and organize data.	F3a
3. Display data using appropriate tables and graphs.	F3a
4. Use the language of statistics to read and communicate data.	F3a
5. Make predictions and convincing arguments that are based on data analysis.	F3a
Content Standard 2: The students will explore probability models through experiments and simulations.	F3a
4.2 Student Learning Expectations	
1. Use manipulatives to explore the concepts of chance and record the results.	F3a
2. Use technology.	F5a
Content Standard 3: The student will use probability and statistical concepts in problem solving and decision making situations.	F3a, F5a
4.3 Student Learning Expectations	
1. Generalize and interpret experimental results and use data to make inferences, predictions, and/or decisions in the real world.	F3a
2. Use informal measures of central tendency and dispersion to interpret data.	F3a
3. Use technology.	F5a
Strand 5: ALGEBRAIC FUNCTIONS	
Content Standard 1: The student will use the language of algebra as a representational tool.	F3a
5.1 Student Learning Expectations	
1. Sort and classify a wide variety of materials.	F3a
2. Recognize, describe, extend, and create a wide variety of patterns.	F3a
3. Transform patterns from models to symbolic representations.	F3a
4. Demonstrate knowledge of equality and inequality using manipulatives and symbols.	F3a
5. Explore the language of variables using manipulatives and express as open sentences.	F3a
6. Use graphic representations to express mathematical relationships in one and two dimensions.	F3a
7. Use technology to create patterns.	F5a
Content Standard 2: The student will use algebraic concepts to model, solve, and test solutions to mathematical and real-world problems.	F2a, F3a
5.2 Student Learning Expectations	
1. Use manipulatives to recognize, extend, and create a wide variety of patterns.	F3a
2. Extend patterns and record symbolically.	F3a
3. Explore and demonstrate knowledge of the concepts of variables using manipulatives.	F3a

California

Documents Utilized

Foreign Language Framework for California Public Schools Kindergarten through Grade Twelve (1989)
Mathematics Framework for California Public Schools Kindergarten through Grade Twelve (1992)
Health Framework for California Public Schools Kindergarten through Grade Twelve (1994)
English - Language Arts Framework for California Public Schools Kindergarten through Grade Twelve (1987)
History - Social Science Framework for California Public Schools Kindergarten through Grade Twelve (1987)
Physical Education Framework for California Public Schools Kindergarten through Grade Twelve (1994)
Science Framework for California Public Schools Kindergarten through Grade Twelve (1990)

Note: California also has a Visual and Performing Arts Framework; however, we had not received as copy at the date of publication and were unable to match to this subject area.

Background

Reform efforts during the late 1980s and early 1990s in California focused on upgrading the curriculum and strengthening graduation requirements. The curriculum frameworks, published by the California State Board of Education, were developed in a separate process for each subject area and are in the process of being updated. All of the frameworks describe student learning at specific grade-levels, typically K-4, 5-8, and 9-12. The frameworks are voluntary, but they are (or will be) tied to the statewide assessment system, textbook adoption, and professional development. They were developed by leading educators throughout the state and are to be used by local schools as guidelines.

California

HEALTH, GRADES 3-6	NCEO CODE
Unifying Idea: Acceptance of personal responsibility for lifelong health.	
Expectations:	
Students will demonstrate ways in which they can enhance and maintain their health and well-being.	C1
Students will demonstrate behaviors that prevent disease and speed recovery from illness.	C2c
Students will practice behaviors that reduce the risk of becoming involved in potentially dangerous situations in ways that help to protect their health.	C1a
Unifying Idea: Respect for and promotion of the health of others.	
Expectations:	
Students will play a positive, active role in promoting the health of their families.	C
Students will promote positive health practices within the school and community, including developing positive relationships with their peers.	C
Unifying Idea: An understanding of the process of growth and development.	
Expectations:	
Students will understand the variety of physical, mental, emotional, and social changes that occur throughout life.	C

California

	NCEO CODE
Students will understand and accept individual differences in growth and development.	C, G3b
MATHEMATICS	
NCTM STANDARDS FOR THE ELEMENTARY GRADES	
Standard 1: Mathematics and Problem Solving	
In kindergarten through grade four, the study of mathematics should emphasize problem solving so that students can:	
Use problem-solving approaches to investigate and understand mathematical content.	F2a, F3a
Formulate problems from everyday and mathematical situations.	F3a
Develop and apply strategies to solve a wide variety of problems.	F3a
Verify and interpret results with respect to the original problem.	F3a
Acquire confidence in using mathematics meaningfully.	F3a
Standard 2: Mathematics as Communication	
In kindergarten through grade four, the study of mathematics should include numerous opportunities for communication so that students can:	
Relate physical materials, pictures, and diagrams to mathematical ideas.	F3a
Reflect on and clarify their thinking about mathematical ideas and situations.	F3a
Relate their everyday language to mathematical language and symbols.	F3a
Realize that representing, discussing, reading, writing, and listening to mathematics are a vital part of learning and using mathematics.	F3a
Standard 3: Mathematics as Reasoning	
In kindergarten through grade four, the study of mathematics should emphasize reasoning so that students can:	
Draw logical conclusions about mathematics.	F3a
Use models, known facts, properties, and relationships to explain their thinking.	F3a
Justify their answers and solution processes.	F3a
Use patterns and relationships to analyze	F3a
Standard 4: Mathematical Connections	
In kindergarten through grade four, the study of mathematics should include opportunities to make connections so that students can:	
Link conceptual and procedural knowledge.	F3a
Relate various representations of concepts or procedures to one another.	F3a
Recognize relationships among different topics in mathematics.	F3a
Use mathematics in other curricular areas.	F3a
Use mathematics in their daily lives.	F3a
Standard 5: Estimation	
In kindergarten through grade four, the mathematics curriculum should include estimation so students can:	
Explore estimation strategies.	F3a
Recognize when an estimate is appropriate.	F3a
Determine the reasonableness of results.	F3a
Apply estimation in working with quantities, measurement, computation, and problem solving.	F3a
Standard 6: Number Sense and Numeration	
In kindergarten through grade four, the mathematics curriculum should include whole number concepts and skills so that students can:	
Construct number meanings through real-world experiences and the use of physical materials.	F3a
Understand the numeration system by relating counting, grouping, and place-value concepts.	F3a
Develop number sense.	F3a
Interpret the multiple uses of numbers encountered in the real world.	F3a

California

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California

	NCEO CODE
FOREIGN LANGUAGE	
INSTRUCTION IN ENGLISH AS A SECOND LANGUAGE	
Goals of Instructional Programs	
Students who successfully complete instruction in English as a second language should be able to:	
Function well enough in English to be successful in programs designed for native speakers of English.	no match
Function successfully in the general school curriculum as appropriate for age, ability, and experience.	no match
Demonstrate continuous progress without special instruction in English.	no match
Demonstrate improved self-confidence and self-esteem in both an English-speaking environment and in their native-language environment.	G2
COMPETENCY LEVELS	
Listening	
Novice: Understands learned material at an elementary level.	
Intermediate: Understands routine speech and conversations.	
Advanced: Understands main ideas and details of many kinds of presentations.	
Superior: Understands all standard speech, including idioms and subtleties.	
Distinguished: Understands all forms and styles of speech.	
Reading	
Novice: Recognizes alphabet and understands learned and written material.	
Intermediate: Understands main ideas, facts, and narratives in textbooks dealing with everyday matters.	
Advanced: Understands simple stories, news, letters, and technical textbooks of a general nature.	
Superior: Reads prose, literature, and so forth on a great variety of topics at a normal speed.	
Distinguished: Reads any written material and understands content, intent, cultural references, and so forth.	
Conversation	
Novice: Communicates learned material at an elementary level.	
Intermediate: Participates in basic communication tasks; combines and recombines basic speech elements.	
Advanced: Maintains extended conversations; satisfies work and school needs; handles unforeseen problems.	
Superior: Communicates in most formal and informal situations, including abstract matters; can hypothesize and so forth.	
Distinguished: Communicates on a professional level; can tailor speech to audience, can negotiate, persuade, interpret, and so forth.	
Writing	
Novice: Can copy, transcribe, and write learned material.	
Intermediate: Writes short messages and simple letters; takes notes, writes simple summaries	
Advanced: Writes narratives, descriptions, business correspondence, résumés and summaries.	
Superior: Expresses self in formal and informal writing; does research papers; writes on professional topics.	
Distinguished: Writes with precision; can represent a point of view; tailors writing to audience.	
Culture	
Novice: Aware of stereotypes; handles cultural dimensions of everyday activities.	
Intermediate: Perceives cultural differences and recognizes points of misunderstanding; handles aspects of more complex situations.	
Advanced: Demonstrates important cultural behaviors; knows how misunderstandings arise;	

California

	NCEO CODE
handles personal relationships and historical references.	
Superior: Handles most native customs, values, and attitudes in most social and professional situations.	
Distinguished: Near-native proficiency in sensitivity to values, beliefs, geographical differences, and historical conditioning.	
Content/Vocabulary	
Novice: Understands 800 to 1,600 words; uses 300 to 600 words; frequently encounters basic everyday topics.	
Intermediate: Understands 1,000 to 3,000 words; uses 600 to 1,000 words; frequently encounters general topics.	
Advanced: Understands 2,400 to 4,500 words; uses 1,200 to 2,000 words; expands topics to business, politics, and social arrangements.	
Superior: Understands 3,500 to 6,000 words; uses 2,000 to 3,000 words; expands topics to more abstract areas of feeling, emotions, personality, and so forth.	
Distinguished: Near-native ability in topics and vocabulary handled.	
Accuracy	
Accuracy constitutes the degree of control students have over such aspects as grammar, word choice, cultural appropriateness, graphics, comprehension, and so forth. Accuracy becomes most crucial at any level when errors result in miscommunication. Specific accuracy concerns for each stage of competency development can be found in other publications.	
Competency	
Competency is the degree of skill in using all components as integrated acts of communication.	
SCIENCE	
PHYSICAL SCIENCES	
Section A: Matter	
1. What is matter, and what are its properties?	F4a
2. What are the basic units of matter, and where did matter come from?	F4a
3. What principles govern the interactions of matter? How does chemical structure determine the physical properties of matter?	F4a
Section B: Reactions and Interactions	
1. What happens when substances change?	F4a
2. What controls how substances change?	F4a
Section C: Force and Motion	
1. What is motion? What are some basic kinds of motion? How is motion described?	F4a
2. What is force? What are the characteristics of forces? What is the relationship of force to motion?	F4a
3. What are machines, and what do they do? What principles govern their action?	F4a
Section D: Energy: Sources and Transformations	
1. What is energy? What are its characteristics?	F4a
2. What do we do with energy? What changes occur as we use it?	F4a
Section E: Energy: Heat	
1. What is heat energy? Where does it come from, and what are its properties?	F4a
2. How do we use heat energy?	F4a
Section F: Energy: Electricity and Magnetism	
1. What are electricity and magnetism? What are they like, and what are their basic properties? How do they interact?	F4a
2. How do we use electricity and magnetism?	F4a
Section G: Energy: Light	
1. How does light enable us to see? What are the sources of light? What is light?	F4a
2. What are the properties of light?	F4a
3. How do we use light?	F4a

California

	NCEO CODE
Section H: Energy: Sound	
1. Where does sound come from? What are its sources? How can sound be described?	F4a
2. How does sound enable us to hear? How do we produce sounds?	F4a
3. How do we use sound?	F4a
EARTH SCIENCES	
Section A: Astronomy	
1. What kinds of objects does the universe contain, and how do these objects relate to one another?	F4a
2. How has the universe evolved?	F4a
3. How do we learn about the contents and structure of the universe?	F4a
Section B: Geology and Natural Resources	
1. How has plate tectonics shaped the evolution of the earth?	F4a
2. How are rocks and minerals formed, how are they distinguished, and how are they classified?	F4a
3. What is the history of the earth, and how have geomorphic processes shaped the earth's present features?	F4a
4. What are the responsibilities of humans toward natural resources?	F4a
Section C: Oceanography	
1. What is the water cycle? How does water the cycle affect the climate, weather, and life of the earth? How does water affect surface features of the land and the ocean floor?	F4a
2. What are the oceans? What are the environments and topography of the ocean bottoms? How do the oceans support life, and how have the oceans and their marine life changed through time?	F4a
3. How do waters circulate in the ocean, and how does this circulation affect weather and climate?	F4a
4. How do humans interact with the oceans? What may be some long-term effects of human interactions with the oceanic environments?	F4a
LIFE SCIENCES	
Section A: Living Things	
1. What are the characteristics of living things?	F4a
2. How do the structures of living things perform their functions, interact with each other, and contribute to the maintenance and growth of the organism?	F4a
3. What are the relationships of living organisms, and how are living things classified?	F4a
4. How do humans interact with other living things?	F4a
Section B: Cells, Genetics, and Evolution	
[Note: In this section, the term *cells* includes the general areas of cellular and molecular biology, as well as biochemical topics covered in high school biology. Cells also includes general histological and structural features of tissue and organ systems, as well as cellular parts and components in one-celled and multi-celled organisms. *Genetics* includes genetic structure and developmental processes. *Evolution* includes population genetics, evolutionary biology, and paleontology.]	
1. What are cells? What are their component structures and their functions? How do they grow? What is the biochemical basis of life and of metabolism?	F4a
2. How are the characteristics of living things passed on through generations? How does heredity determine the development of individual organisms?	F4a
3. How has life changed and diversified through time? What processes and patterns characterize the evolution of life?	F4a
Section C: Ecosystems	
1. What are ecosystems, and how do organisms interact in ecosystems?	F4a
2. How does energy flow within an ecosystem?	F4a
3. How do ecosystems change?	F4a
4. What are the responsibilities of humans toward ecosystems?	F4a

California

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2. What are the properties of light?	F4a
3. How do we use light?	F4a

California

	NCEO CODE
Economic Literacy	
Understand the basic economic problems confronting all societies.	F4a
Understand comparative economic systems.	F4a
Understand the basic economic goals, performance, and problems of our society.	F4a
Understand the international economic system.	F4a
Understand the close relationship between social and political systems.	F4a
Understand the close relationship between society and the law.	F4a
Understand comparative political systems.	F4a
GOAL OF DEMOCRATIC UNDERSTANDING AND CIVIC VALUES	
National Identity	
Recognize that American society is now and always has been pluralistic and multicultural.	F4a
Understand the American creed as an ideology extolling equality and freedom.	F4a
Recognize the status of minorities and women in different times in American history.	F4a
Understand the unique experiences of immigrants from Asia, the Pacific islands, and Latin America.	F4a
Understand the special role of the United States in world history as a nation of immigrants.	F4a
Realize that true patriotism celebrates the moral force of the American idea as a nation that unites as one people the descendants of many cultures, races, religions, and ethnic groups.	F4a, G3
Constitutional Heritage	F4a
Understand the basic principles of democracy.	F4a
Understand the historical origins of basic constitutional concepts such as representative government, separation of powers, and trial by jury.	E1c, F4a
Civic Values, Rights, and Responsibilities	
Understand what is required of citizens in a democracy.	G
Understand individual responsibility for the democratic system.	G4b
GOAL OF SKILLS ATTAINMENT AND SOCIAL PARTICIPATION	
Participation Skills	
Develop personal skills.	G
Develop group interaction skills.	G4b
Develop social and political participation skills.	E1c, G4
Critical Thinking Skills	
Define and clarify problems.	F4
Judge information related to a problem.	F4
Solve problems and draw conclusions.	F2a
Basic Study Skills	
The basic skills of history-social science include the ability to:	
1. Acquire information by listening, observing, using community resources, and reading various forms of literature and primary and secondary source materials.	F4a
2. Locate, select, and organize information from written sources such as books, periodicals, government documents, encyclopedias, and bibliographies.	F4a
3. Retrieve and analyze information by using computers, microfilm, and other electronic media.	F4a
4. Read and interpret maps, globes, models, diagrams, graphs, charts, tables, pictures, and political cartoons.	F4a
5. Understand the specialized language used in historical research and social science disciplines.	F4a
6. Organize and express ideas clearly in writing and in speaking.	F1a, F3c

Colorado

Documents Utilized

Draft Model K-12 Reading and Writing Standards (no date)
Draft Model K-12 Mathematics Standards (no date)
Draft Model K-12 Science Standards (no date)
Draft Model K-12 History Standards (no date)
Draft Model K-12 Geography Standards (no date)

Background

Colorado vests the authority to grant diplomas, set graduation requirements, determine course offerings, and establish curriculum in its local school boards. Each district can either adopt the model state content standards or develop its own standards that meet or exceed the state standards. A new state student assessment program is scheduled to begin during the 1996-97 school years. It will measure Colorado's progress in achieving the model content standards. These state assessment results will be used to corroborate district assessment results.

Colorado

	READING AND WRITING STANDARDS	NCEO CODE
1.	Students use the correct forms of grammar/usage, mechanics/punctuation, and spelling in their writing.	F3c
2.	Students write for a variety of purposes and audiences.	F3c
	Write for purposes such as telling stories, conveying technical information, and persuading.	F3c
	Students: Write for a wide range of audiences such as peers, teachers, and the community.	F3c
	Plan, draft, revise, edit, and proofread their writing.	F3c
	Use a variety of approaches such as figurative language, symbolism, dialect, and precise vocabulary to convey meaning.	F3c
	Organize their writing using strategies such as listing, cause and effect, comparison and contrast, problem and solution, and narration to convey their purpose for writing.	F3c
	Write to demonstrate critical thinking skills such as analysis, synthesis, and evaluation.	F3c
	Distinguish when it is appropriate to use dialect, based on their purpose and audience for writing.	F3c
	Use handwriting, keyboarding, and/or word processing to produce writing that is readable.	F3c
	A Student Can: Think of and develop ideas for a variety of writing purposes such as telling a story, publishing a class newsletter, writing a letter to an adult, writing a book report, creating and producing a play, introducing a speaker or an event, or narrating a presentation.	F3c
	Generate writing topics, develop ideas, and use organizational tools for planning his or her writing.	F3c
	Use vocabulary and figures of speech, such as similes, to communicate his or her message clearly and precisely.	F3c
	Adapt word choice to various audiences.	F3c
	Give and receive feedback as an aid to revising and editing writing for a larger audience.	F3c
3.	Students read and understand a variety of materials.	F3c
4.	Students use reading and writing to enhance thinking and understanding.	F3c
5.	Students evaluate the quality of their reading and writing and work toward improvement.	F3c
6.	Students read to locate, select, and make use of information from a variety of print, media, and technological sources.	F3c
7.	Students read and recognize literature as an expression of human experience.	F3c

Colorado

		NCEO CODE
MATHEMATICS		
1.	Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.	F3a
2.	Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs.	F3a
3.	Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning and processes used in solving these problems.	F2a, F3a
4.	Students use geometric concepts, their properties and relationships in one, two, and three dimensions to model and solve real-world problems.	F3a
5.	Students use a variety of tools and techniques to make and use measurements in both everyday circumstances and problems situations.	F3a
	Students: Understand and apply the attributes of length, capacity, mass, time, temperature, perimeter, area, volume, and angle measurement.	F3a
	Make and use measurements to describe and compare real-world phenomena.	F3a
	Describe and use rates of change (e.g., temperature as it changes throughout the day, or speed as the rate of change of distance over time) and other derived and indirect measurements.	F3a
	Select appropriate units (including metric and U.S. customary) and tools (e.g., rulers, protractors, compasses, and thermometers) to measure to the degree of accuracy required to solve a given problem	F3a
	A Student Can: Estimate, use, and describe measures of length, perimeter, capacity, weight, time, and temperature.	F3a
	Compare and order objects according to some measurable attribute.	F3a
	Without using measuring tools, know the approximate measures of familiar objects (e.g., the width of your finger, the temperature of a room, and the weight of a hammer).	F3a
	Select and use appropriate units of measurements in problem-solving situations.	F2a, F3a
6.	Students understand, develop, and use computational skills and techniques, including estimation, mental math, paper-and-pencil, calculators, and computers, in problem-solving situations.	F3a
SCIENCE		
1.	Students are able to design, conduct, communicate about, and evaluate a scientific investigation.	F1a, F4a
2.	Students know about and understand common properties, forms, and interactions of matter and energy.	F4a
3.	Students know the characteristics and structure of living things, the processes of life, and how living things interact with their environment.	F4a
4.	Students understand the processes and interactions of earth's systems and the structure and dynamics of earth and other objects in space.	F4a
	Students know the composition of the earth, its history and the natural processes that shape it.	F4a
	Students know the general characteristics of the atmosphere and the fundamental processes of weather.	F4a
	A Student Can: Recognize that the sun is a major source of earth's heat and light.	F4a
	Observe and describe local weather conditions, such as sunny, windy, and cloudy.	F4a
	Recognize how our activities are affected by weather, such as the types of clothing we wear, travel plans, and the kinds of recreation in which we engage.	F4a
	Collect and record weather data such as temperature and amount of cloud cover.	F4a
	Students know the major sources of water, its uses and importance, and its cyclic patterns of movement through the environment.	F4a
	Students know the structure of the solar system, the dynamics of the universe, and how space is explored.	F4a
5.	Students know ways that science, technology, and human activity have impact on the world	F4a

Colorado

Documents Utilized

Draft Model K-12 Reading and Writing Standards (no date)
Draft Model K-12 Mathematics Standards (no date)
Draft Model K-12 Science Standards (no date)
Draft Model K-12 History Standards (no date)
Draft Model K-12 Geography Standards (no date)

Background

Colorado vests the authority to grant diplomas, set graduation requirements, determine course offerings, and establish curriculum in its local school boards. Each district can either adopt the model state content standards or develop its own standards that meet or exceed the state standards. A new state student assessment program is scheduled to begin during the 1996-97 school years. It will measure Colorado's progress in achieving the model content standards. These state assessment results will be used to corroborate district assessment results.

Colorado

	READING AND WRITING STANDARDS	NCEO CODE
1.	Students use the correct forms of grammar/usage, mechanics/punctuation, and spelling in their writing.	F3c
2.	Students write for a variety of purposes and audiences.	F3c
	Write for purposes such as telling stories, conveying technical information, and persuading.	F3c
	Students: Write for a wide range of audiences such as peers, teachers, and the community.	F3c
	Plan, draft, revise, edit, and proofread their writing.	F3c
	Use a variety of approaches such as figurative language, symbolism, dialect, and precise vocabulary to convey meaning.	F3c
	Organize their writing using strategies such as listing, cause and effect, comparison and contrast, problem and solution, and narration to convey their purpose for writing.	F3c
	Write to demonstrate critical thinking skills such as analysis, synthesis, and evaluation.	F3c
	Distinguish when it is appropriate to use dialect, based on their purpose and audience for writing.	F3c
	Use handwriting, keyboarding, and/or word processing to produce writing that is readable.	F3c
	A Student Can: Think of and develop ideas for a variety of writing purposes such as telling a story, publishing a class newsletter, writing a letter to an adult, writing a book report, creating and producing a play, introducing a speaker or an event, or narrating a presentation.	F3c
	Generate writing topics, develop ideas, and use organizational tools for planning his or her writing.	F3c
	Use vocabulary and figures of speech, such as similes, to communicate his or her message clearly and precisely.	F3c
	Adapt word choice to various audiences.	F3c
	Give and receive feedback as an aid to revising and editing writing for a larger audience.	F3c
3.	Students read and understand a variety of materials.	F3c
4.	Students use reading and writing to enhance thinking and understanding.	F3c
5.	Students evaluate the quality of their reading and writing and work toward improvement.	F3c
6.	Students read to locate, select, and make use of information from a variety of print, media, and technological sources.	F3c
7.	Students read and recognize literature as an expression of human experience.	F3c

Delaware

Documents Utilized

Science Curriculum Frameworks -- Draft (May, 1994)
History/Geography/Social Studies Curriculum Framework Commission: Content Standards -- Draft (May, 1994)
The English Language Arts Curriculum Framework Document -- First Draft (May, 1994)

Background

The Delaware Department of Public Instruction is currently engaged in a multi-year educational reform effort initiated in 1992. This reform effort will set standards for what children should know at grades 3, 5, 8, and 10. Four curriculum frameworks are being developed by Curriculum Framework Commissions which are comprised of about 45 volunteers, community leaders, administrators, parents, students, and members of the business community. It is hoped that the curriculum frameworks will be ready for implementation during the 1995-96 school year.

Delaware

	[illegible]
MATHEMATICS	
MATHEMATICAL THINKING PROCESSES	
Standard 1: Students will engage in PROBLEM SOLVING as the core of the entire mathematics program. Problem solving provides the context in which concepts and skills are introduced and learned; requires the application of a variety of strategies; develops persistence, self-reliance, and confidence; integrates mathematical reasoning, communication, and connections; and emphasizes the process that could lead to a reasonable solution.	D1b, F2a, F3a, G2b
PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or cooperative groups while using appropriate technology, **all students in grades K-10 should be able to:**	
1.01 Read and understand the problem.	F3b
1.02 Develop a plan for solving the problem.	F, F2a
1.03 Implement the plan and solve the problem.	F2a
1.04 Reflect on their answer with respect to the original problem.	F3a
1.05 Generalize strategies and solutions to new problem situations.	F3a
Standard 2: Students will develop their ability to COMMUNICATE MATHEMATICALLY by solving problems in which there is a need to obtain information from the real world through reading, listening, and observing; to translate this information into mathematical language and symbols; to process this information mathematically; and to present results in written, oral, and visual formats.	F2a, F3a, F3b
PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, **all students in grades K-10 should be able to:**	
2.01 Model real-world situations using oral, written concrete, pictorial, graphical, and algebraic methods.	F1a, F3a
2.02 Use reading, listening, viewing, speaking, and writing to explain and develop mathematical ideas.	F3a, F3b, F3c
2.03 Use mathematical notation and language to describe and discuss real-world situations.	F3a
2.04 Read mathematics with understanding.	F3a, F3b

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2.05	Develop common understanding of mathematical ideas and use generalizations discovered through investigation to formulate definitions.	F3a
2.06	Ask questions to clarify the situation.	F1a, F3a
	Standard 3: Students will develop their ability to REASON MATHEMATICALLY by solving problems in which there is a need to investigate significant mathematical ideas in all content areas; to justify their thinking; to reinforce and extend their logical reasoning abilities; to reflect on and clarify their own thinking; to ask questions to extend their thinking; and to construct their own learning.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, **all students in grades K-10 should be able to *use inductive and deductive reasoning to:***	
3.01	Formulate and test conjectures;	F3a
3.02	Draw and then justify conclusions.	F3a
3.03	Construct and follow logical arguments.	F3a
3.04	Use properties, models, known facts, and relationships to explain and defend their thinking.	F3a
	Standard 4: Students will develop their ability to make MATHEMATICAL CONNECTIONS by solving problems in which there is a need to view mathematics as an integrated whole and to integrate mathematics with other disciplines while allowing the flexibility to approach problems from within and outside mathematics in a variety of ways.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, **all students in grades K-10 should be able to:**	
4.01	Make connections linking conceptual and procedural knowledge.	F3a
4.02	Solve problems involving other disciplines.	F2a, F3a
4.03	Use connections among mathematical topics.	F3a
4.04	Use various representations of the same concept.	F3a
4.05	Make the connection from manipulative solutions to algorithmic solutions to technological solutions.	F3a
4.06	Determine the reasonableness of a mathematical solution as it applies in a real-world situation.	F3a
	UNIFYING THEMES	
	Standard 5: Students will develop an understanding of ESTIMATION, MEASUREMENT, and COMPUTATION by solving problems in which there is a need to measure to a required degree of accuracy by selecting appropriate tools and units; to develop computing strategies and select appropriate methods of calculation from among mental math, paper and pencil, calculators or computers; to use estimating skills to approximate an answer and to determine the reasonableness of results.	F2a, F3a, F5a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, building upon the K-3 expectations, **all students in grades 4-5 should be able to:**	
5.12	Estimate, then measure length, perimeter, time, temperature, weight/mass, capacity, and area to the degree of accuracy required using standard and nonstandard units.	F3a
5.13	Describe the structure and the use of systems of measurement.	F3a
5.14	Estimate, measure, and compute the perimeter of polygons.	F3a
5.15	Develop, use, and explain algorithms for addition, subtraction, multiplication, and division.	F3a
5.16	Use multiple computational procedures to add and subtract fractions and decimals, to	F3a

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	multiply fractions, and to divide whole numbers using multi-digit divisors.	
5.17	Estimate, measure, and compute the area of rectangles.	F3a
5.18	Make estimates before measuring and computing.	F3a
5.19	Round decimals as an estimation strategy.	F3a
5.20	Determine if an estimate is more appropriate than an exact answer.	F3a
5.21	Determine if an estimate is reasonable.	F3a
5.22	Make change by counting on and counting back.	F3a
	Standard 6: Students will develop NUMBER SENSE by solving problems in which there is a need to represent and model real numbers verbally, physically and symbolically; to use operations with understanding; to explain the relationships between numbers; to apply the concept of a unit, and to determine the relative magnitude of real numbers.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, building upon the K-3 expectations, **all students in grades 4-5 should be able to:**	
6.12	Connect different representations of fractions, decimals, and whole numbers: physical, verbal, and symbolic.	F3a
6.13	Demonstrate an understanding of the composite nature of numbers.	F3a
6.14	Build decimal representations using base ten.	F3a
6.15	Demonstrate the need for and the connection between decimals and fractions.	F3a
6.16	Demonstrate an understanding of order relations for fractions, decimals, and whole numbers: physical, verbal, and symbolic.	F3a
6.17	Examine the relative effect of operations on whole numbers, fractions, and decimals.	F3a
6.18	Recognize the arbitrary size of a unit and its relationship of fractional and decimal parts.	F3a
	Standard 7: Students will develop an understanding of ALGEBRA by solving problems in which there is a need to progress from the concrete to the abstract using physical models, equations, and graphs; to generalize number patterns; and to describe, represent, and analyze relationships among variable quantities.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, building upon the K-3 expectations, **all students in grades 4-5 should be able to:**	
7.05	Use letters as variable representations.	F3a
7.06	Solve equations using methods such as inverse operations, mental math, and guess and check.	F3a
7.07	Find solutions to inequalities from a given replacement set.	F3a
	Standard 8: Students will develop SPATIAL SENSE and an understanding of GEOMETRY by solving problems in which there is a need to recognize, construct, transform, analyze properties of, and discover relationships between geometric figures.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, building upon the K-3 expectations, **all students in grades 4-5 should be able to:**	
8.07	Recognize geometry in their world.	F3a
8.08	Visualize, represent, and draw geometric figures (triangle, quadrilaterals, and regular polygons).	F3a
8.09	Given a net, build three-dimensional figures such as a cube, rectangular prism, cylinder, and square pyramid.	F3a
8.10	Manipulate and draw polygons using flips, slides and turns.	F3a

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2.05	Develop common understanding of mathematical ideas and use generalizations discovered through investigation to formulate definitions.	F3a
2.06	Ask questions to clarify the situation.	F1a, F3a
	Standard 3: Students will develop their ability to REASON MATHEMATICALLY by solving problems in which there is a need to investigate significant mathematical ideas in all content areas; to justify their thinking; to reinforce and extend their logical reasoning abilities; to reflect on and clarify their own thinking; to ask questions to extend their thinking; and to construct their own learning.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, **all students in grades K-10 should be able to *use inductive and deductive reasoning to:***	
3.01	Formulate and test conjectures;	F3a
3.02	Draw and then justify conclusions.	F3a
3.03	Construct and follow logical arguments.	F3a
3.04	Use properties, models, known facts, and relationships to explain and defend their thinking.	F3a
	Standard 4: Students will develop their ability to make MATHEMATICAL CONNECTIONS by solving problems in which there is a need to view mathematics as an integrated whole and to integrate mathematics with other disciplines while allowing the flexibility to approach problems from within and outside mathematics in a variety of ways.	F2a, F3a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, **all students in grades K-10 should be able to:**	
4.01	Make connections linking conceptual and procedural knowledge.	F3a
4.02	Solve problems involving other disciplines.	F2a, F3a
4.03	Use connections among mathematical topics.	F3a
4.04	Use various representations of the same concept.	F3a
4.05	Make the connection from manipulative solutions to algorithmic solutions to technological solutions.	F3a
4.06	Determine the reasonableness of a mathematical solution as it applies in a real-world situation.	F3a
	UNIFYING THEMES	
	Standard 5: Students will develop an understanding of ESTIMATION, MEASUREMENT, and COMPUTATION by solving problems in which there is a need to measure to a required degree of accuracy by selecting appropriate tools and units; to develop computing strategies and select appropriate methods of calculation from among mental math, paper and pencil, calculators or computers; to use estimating skills to approximate an answer and to determine the reasonableness of results.	F2a, F3a, F5a
	PERFORMANCE INDICATORS Through the investigation of meaningful problems, individually or in cooperative groups while using appropriate technology, building upon the K-3 expectations, **all students in grades 4-5 should be able to:**	
5.12	Estimate, then measure length, perimeter, time, temperature, weight/mass, capacity, and area to the degree of accuracy required using standard and nonstandard units.	F3a
5.13	Describe the structure and the use of systems of measurement.	F3a
5.14	Estimate, measure, and compute the perimeter of polygons.	F3a
5.15	Develop, use, and explain algorithms for addition, subtraction, multiplication, and division.	F3a
5.16	Use multiple computational procedures to add and subtract fractions and decimals, to	F3a

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including the major features these maps contain.	
Standard 2: Students should be able to identify and evaluate the basic location reasons for the choice of settlements and the routes of connections to other settlements.	F4a
Standard 3: Students should be able to apply knowledge of topography, climate, soils, and vegetation of Delaware or the United States to analyze how human society changes and is affected by the physical environment.	F4a
Standard 4: Students should be able to construct the geography of a region and offer reasons for its physical environment, the principles influencing the allocation of human activities, why these locations have changed over time, and how the natural environment has been modified.	F4a
ECONOMICS	
Standard 1: Students should be able to explain economic choices made by producers in terms of supply, demand, and access to markets.	F4a
Standard 2: Students should be able to demonstrate how governmental actions and regulation can affect personal economic activities.	F4a
Standard 3: Students should be able to demonstrate ways in which international trade links countries around the world.	F4a
CIVICS	
Standard 1: Students should be able to demonstrate an understanding of the principles and basic organization of representative democracy as defined in the U.S. and State Constitutions.	F4a
Standard 2: Students should be able to compare the roles and responsibilities of leaders of varying historical and cultural contexts.	F4a
Standard 3: Students should be able to identify and employ the formal and informal methods by which democratic groups function.	F4a
Standard 4: Students should be able to identify and evaluate mechanisms of government to safeguard the rights of individuals and minorities.	F4a
SCIENCE	
Standard 1: MATERIALS AND THEIR PROPERTIES	
A. Perform measurements on and develop descriptions of the physical properties of common objects, and construct classification systems to sort and group these objects.	F4a
Explore and describe how the properties of a material change as that material changes from one state to another.	F4a
Observe, discuss, and demonstrate with a variety of materials the changes in properties that occur when those materials interact with their environment (dissolving, weathering, and shrinkage of fabric, melting, rusting, etc.).	F4a
B. The Particulate Model	
a. Inspect a variety of objects in various states, and discuss and describe the increased level of detail that can be observed with magnification.	F4a
C. Mixtures and Solutions	
a. Select commonly found physical mixtures or prepare a variety of physical mixtures. Predict and demonstrate methods to separate these mixtures into their component parts based on difference in the physical properties of each component.	F4a
D. Reactions of Materials and the Conservation to Matter	
a. Construct objects out of smaller parts, take them apart, rearrange them, and demonstrate that the weight of the whole object is equal to the sum of the weight of the parts.	F4a
E. Technology and Application	
a. Investigate the properties of materials that make them useful for a given purpose in the real world and use this knowledge to design a common object or solve a problem.	F2a, F4a
b. Identify specific examples of how technology impacts humans and the environment and	F4a

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investigate how new material inventions can sometimes solve one problem but at the same time create new problems.	
Standard 3: EARTH'S DYNAMIC SYSTEMS	
A. Properties and Composition of Rocks and Soil	
1a. Sort and classify samples of natural materials (soils, rocks, minerals) according to their physical properties and characteristics.	F4a
2a. Conduct simple investigations to determine how different types of soil affect plant growth and development (sand, clay, organic).	F4a
B. Forces That Shape Earth	
1a. Use globes, maps, and posters to identify major land forms and geological features.	F4a
1b. Explore changes occurring in local surroundings that are brought about by natural forces (erosion, wind, ice, sunlight) and by the activity of plants, animals, sea life, and humans.	F4a
C. Atmospheric Dynamics	
1a. Keep daily records of temperature and weather conditions and use them to identify patterns over short and long periods of time.	F4a
2a. Describe weather conditions (sunny, foggy, rain, etc.) and discuss and identify those conditions that are destructive or dangerous.	F4a
D. Hydrologic Dynamics	
1a. Use of state of matter classification system (solid, liquid, gas) to explore and demonstrate parts of the water cycle.	F4a
E. Geologic Times	
No content statements at this grade cluster.	
F. Stewardship of Earth's Resources	
1a. Survey family and friends to determine how water is used. Compare findings with classmates and classify essential uses of water (cooking, cleaning, bathing, farming).	F4a
2a. Identify Earth materials found in the school building or community. Discuss the processes used to obtain these materials, the methods used to dispose of the, and the environmental implications of both.	F4a
G. Technology and Applications	
1a. Use thermometers, barometer, wind vanes and drain gauges, and clocks to predict changes in the weather and explain how weather affects their lives.	F4a, F5a
Standard 5: LIFE PROCESSES	
A. Structure/Function Relationship	
1a. Use magnifiers to examine a variety of common organisms. Describe, compare, and contrast their physical properties and behavior characteristics.	F4a
B. Matter and Energy Transformations	
1a. Compare a human's energy and material needs for growth and good health to the same needs for plants and other animals.	F4a
1b. Explore a simple, natural system (classroom aquarium and an outdoor habitat) and generate questions about the transfer of energy and use of nutrients.	F4a
C. Internal Balance	
1a. Observe and record the behavior of plants under a variety of conditions (changes in food, light, water, composition of soil, and use of fertilizer) and relate these observations to the plant's requirements for survival.	F4a
1b. Investigate and describe the habitats of local plants and animals and identify parts and behaviors of the organisms that enable them to survive in their environment.	F4a
D. Life Cycles of Living Organisms	
1a. Construct charts to record data on the rate of growth of several common organisms. Use this data to identify the life cycle stages.	F4a
E. Health and Well-Being	
1a. Collect, record, and chart information relating to personal health using simple devices such as a watch, thermometer, stethoscope, scale, and measuring tape. Use this	F4a

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information to discuss individual, group, or class trends and patterns.	
F. 1a. Investigate, discuss, and raise questions about the contributions of science and technology to good health (personal hygiene, sanitation, antibiotics, tools for diagnosis, and the repair and replacement of body parts).	F4a
ENGLISH LANGUAGE ARTS	
Standard 1: Students will use written and oral English appropriate for various purposes and audiences.	
1. WRITTEN COMMUNICATION Writing is a flexible and recursive process which encompasses identifying purposes and audiences, prewriting, drafting, revising, editing, and publishing. The writer will produce texts which exhibit the formal conventions and qualities defined for effective writing appropriate for each developmental level.	
A. The student writes argumentative and persuasive texts exhibiting the following qualities:	
1. The writer takes a clear-cut stand on the selected issue.	F3c
2. The writer says concisely what is meant.	F3c
3. The writer exhibits knowledge of the audience through:	
a. Selecting a language appropriate to the audience,	F3c
b. Building a relevant similarity with the audience, and	F3c
c. Predicting audience response and building a case accordingly.	F3c
4. The writer selects a structure (or organizational pattern) for the argument and maintains it throughout the piece.	F3c
5. The writer exhibits knowledge of the purpose for the piece.	F3c
6. The writer establishes credibility and exhibits knowledge of the topic.	F3c
7. The writer supports arguments with relevant sources ranging from personal opinions and example to quotations and other opinions to statistics and data.	F3c
8. The writer exhibits cogent reasoning.	F3c
B. The students write narrative texts, both fiction and nonfiction, exhibiting the following qualities:	
1. The writer carefully selects events, descriptive and explanatory details, and dialogue to bring the narrative to life for the reader.	F3c
2. The writer follows a structure that exhibits:	
a. A definite beginning to arouse the reader's interest and to provide the information necessary to understand the rest of the narrative,	F3c
b. A middle that sustains interest by depicting a series of events with accompanying details, and	F3c
c. An ending that satisfies the interest by revealing the final outcome and perhaps some reflection by the author on the meaning and significance of the experience.	F3c
3. The writer exhibits a strong sense of organization by selecting a sequence of events so that one event moves smoothly into another.	F3c
4. The writer selects every event, detail, and line of dialogue with the purpose of telling the story. The writer does not try to communicate everything that happened—only what gives meaning to the story.	F3c
5. The writer may use dialogue to:	
a. Add realism,	F3c
b. Move the action forward, and	F3c
c. Reveal character.	F3c
6. The writer selects and sustains the following:	
a. A language natural to the narrative,	F3c
b. A point of view appropriate to the narrative, and	F3c
c. Verb tense (or tenses) consistent with the flow of the narrative.	F3c
C. The student writes expository text, both technical (that which is used in the workplace) and academic (that which is used in institutions of higher learning), exhibiting the following qualities:	

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investigate how new material inventions can sometimes solve one problem but at the same time create new problems.	
Standard 3: EARTH'S DYNAMIC SYSTEMS	
A. Properties and Composition of Rocks and Soil	
1a. Sort and classify samples of natural materials (soils, rocks, minerals) according to their physical properties and characteristics.	F4a
2a. Conduct simple investigations to determine how different types of soil affect plant growth and development (sand, clay, organic).	F4a
B. Forces That Shape Earth	
1a. Use globes, maps, and posters to identify major land forms and geological features.	F4a
1b. Explore changes occurring in local surroundings that are brought about by natural forces (erosion, wind, ice, sunlight) and by the activity of plants, animals, sea life, and humans.	F4a
C. Atmospheric Dynamics	
1a. Keep daily records of temperature and weather conditions and use them to identify patterns over short and long periods of time.	F4a
2a. Describe weather conditions (sunny, foggy, rain, etc.) and discuss and identify those conditions that are destructive or dangerous.	F4a
D. Hydrologic Dynamics	
1a. Use of state of matter classification system (solid, liquid, gas) to explore and demonstrate parts of the water cycle.	F4a
E. Geologic Times	
No content statements at this grade cluster.	
F. Stewardship of Earth's Resources	
1a. Survey family and friends to determine how water is used. Compare findings with classmates and classify essential uses of water (cooking, cleaning, bathing, farming).	F4a
2a. Identify Earth materials found in the school building or community. Discuss the processes used to obtain these materials, the methods used to dispose of the, and the environmental implications of both.	F4a
G. Technology and Applications	
1a. Use thermometers, barometer, wind vanes and drain gauges, and clocks to predict changes in the weather and explain how weather affects their lives.	F4a, F5a
Standard 5: LIFE PROCESSES	
A. Structure/Function Relationship	
1a. Use magnifiers to examine a variety of common organisms. Describe, compare, and contrast their physical properties and behavior characteristics.	F4a
B. Matter and Energy Transformations	
1a. Compare a human's energy and material needs for growth and good health to the same needs for plants and other animals.	F4a
1b. Explore a simple, natural system (classroom aquarium and an outdoor habitat) and generate questions about the transfer of energy and use of nutrients.	F4a
C. Internal Balance	
1a. Observe and record the behavior of plants under a variety of conditions (changes in food, light, water, composition of soil, and use of fertilizer) and relate these observations to the plant's requirements for survival.	F4a
1b. Investigate and describe the habitats of local plants and animals and identify parts and behaviors of the organisms that enable them to survive in their environment.	F4a
D. Life Cycles of Living Organisms	
1a. Construct charts to record data on the rate of growth of several common organisms. Use this data to identify the life cycle stages.	F4a
E. Health and Well-Being	
1a. Collect, record, and chart information relating to personal health using simple devices such as a watch, thermometer, stethoscope, scale, and measuring tape. Use this	F4a

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D. The student critically analyzes and evaluates information and messages presented through print and speech sources.	F3b
1. The student synthesizes information.	F3b
2. The student formulates and expresses opinions about text and media presentations.	F3b
3. The student responds to questions requiring critical thinking.	F3b
4. The student draws conclusions.	F3b
5. The student evaluates persuasive texts and media presentations for bias and misinformation.	F3b
6. The student evaluates expository and technical texts for their completeness, accuracy, and clarity of communication.	F3b
7. The student evaluates the literary merit of various texts and media presentations.	F3b
E. The student develops an informed and critical understanding of the nature of mass media, the techniques used by them, and the impact of these techniques.	F2a, F3b
1. The student evaluates how the content, technique, and form of electronic messages affect him/her.	F2a, F3b
2. The student recognizes a variety of persuasive and propagandistic techniques and how they are used in a variety of forms including advertising, political campaigns, documentaries, and news formats.	F2a, F3b
F. The student integrates from several sources and applies this information.	F2a
1. The student makes decisions.	F2a
2. The student solves problems.	F2a
3. The student completes tasks.	D1b
4. The student creates products.	F3b
Standard 3: Students will access, organize, and evaluate information gained by listening, reading, and viewing.	F4
A. The student identifies, locates, and selects sources of information relevant to a defined need.	F4
1. The student uses a variety of sources for information and ideas.	F4
2. The student extracts information relevant to the purpose.	F4
3. The students gathers information and ideas using technology.	F4, F5a
B. The student organizes, manipulates, and expresses the information and ideas relevant to a defined need.	F4
1. The student develops an efficient process for research manipulation.	F4
2. The student applies higher-order thinking skills in selecting and organizing information.	F2a
3. The student uses technology to synthesize information into a meaningful format.	F5a
4. The student presents information which is sufficient in quantity and depth to suit the purpose.	F4
5. The student represents information, ideas, and experiences using text, drawings, graphs, diagrams, photographs, videos, and graphics.	F4
C. The student effectively evaluates both sources and information.	F2a
1. The student selects sources which are acknowledged and authoritative.	F4
2. The student analyzes sources and information for accuracy, bias, stereotypes, and validity.	F2a
3. The student acknowledges and addresses any bias and/or discrepancies which may be present in source materials.	F4
4. The student interprets the information, as appropriate, to the purpose.	F2a, F4
5. The student formulates logical conclusions to complete the task.	F2a
Standard 4: Students will use literary knowledge to connect self to society and culture. Literature is a central and integrative element of culture and develops an understanding and appreciation of humanity.	F4b
A. The student responds to literature using personal experience.	F4a
1. The student identifies with or sympathizes with characters of varying ages, genders, nationalities, races, cultures, and religions.	G3b
2. The student questions, challenges, or rejects characters based on a clear understanding of motivation and situations.	F4b

Delaware

	NCEO CODE
3. The student relates incidents in the text to life.	F4b
4. The student reacts to how narrative point of view affects the reader, the author, and the text.	F4b
5. The student relates principal ideas of literary text to personal experiences.	F4b
6. The student explores and experiments with other literary texts as a result of the emotional response.	F4b
B. The student responds to literature using interpretive, critical, and evaluative processes.	F2a, F4b
1. The student makes inference about content, events, characters, setting, author's purpose.	F4b
2. The student interprets the use of literary devices (e.g., figurative language, allusion, diction, dialogue, description, etc.), tone, mood.	F4b
3. The student evaluates literary qualities such as use of language, content, and literary elements.	F4b
4. The student evaluates the suitability of characters' actions in a particular event, the emotional appeal of the text, and/or the author's method (adequacy or validity of the genre and the relevancy of the approach).	F4b
C. The student responds appreciatively to a broad range of culturally significant literary texts written by historical and modern authors.	F4b
1. The student values literary texts representing the rich diversity of American cultural heritage inclusive of ages, genders, nationalities, races, and religions.	F4b
2. The student values literary texts representative of various historical periods ranging from the ancient world to the present.	F4b
3. The student gains esteem from world literature.	F4b
D. The student uses literature as a basis for understanding self and society.	F4b
1. The student perceives literary themes as a means to develop a sense of self and connectedness to others and to develop an awareness of major social and political issues.	F4b
2. The student appreciates the interrelationship between literature and the arts as communication systems expressed through a variety of media.	F4b

District of Columbia

Document Utilized

Baseline Indicators: A Framework for Accountability--Draft (October, 1993)

Background

The *Baseline Indicators: A Framework for Accountability* is a product from the on-going efforts of the Interagency Standards Committee, and should be considered as a draft. This committee was one of four that were formed following the January 23, 1993 "Education Summit," where a commitment was made to improve the DC Public Schools by providing "enhanced educational standards and student achievement, through inter-agency cooperation and communication." The indicators were identified by surveying various indicator systems and other resources. They were intended to become the foundation for annual reports on the progress of schools in the school system. DC Public Schools are also involved in the process of setting performance standards based upon the baseline indicators.

Note: For the comparison to NCEO's grade 4 model, the following Washington, D.C. educational goals did not apply and were not matched: Increased graduation rates; quality teachers; and postsecondary opportunities.

District of Columbia

EDUCATIONAL GOALS	NCEO CODE
Goal 3: IMPROVED ACADEMIC ACHIEVEMENT	
Reading	
1. Standardized test(s) administered	no match
a. Percent of students scoring by decile on the CTBS	
b. Percent of students scoring above national norm on the CTBS	
c. Percentage of DCPS public school fourth graders who scored at the following levels in reading achievement (1992) on the NAEP: Below Basic, Basic, Proficient, Advanced	
Mathematics	
2. Standardized test(s) administered	no match
a. Percent of students scoring by decile on the CTBS	
b. Percent of students scoring above national norm on the CTBS	
c. Percentage of DCPS public school fourth graders who scored at the following levels in mathematics achievement (1990) and of 4th and 8th graders on the 1992 NAEP: Below Basic, Basic, Proficient, Advanced	
Science	
4. Standardized test(s) administered	no match
a. Percent of students scoring by decile	
b. Percent of students scoring above national norm	
Taking a Foreign Language	
5. Percent of students who took a foreign language prior to 9th grade	no match
6. Number of students enrolled in foreign languages	no match
Gifted and Talented	
13. Number of schools with gifted and talented program	no match
14. Percent of students participating in gifted and talented programs	no match

Delaware

	NCEO CODE
3. The student relates incidents in the text to life.	F4b
4. The student reacts to how narrative point of view affects the reader, the author, and the text.	F4b
5. The student relates principal ideas of literary text to personal experiences.	F4b
6. The student explores and experiments with other literary texts as a result of the emotional response.	F4b
B. The student responds to literature using interpretive, critical, and evaluative processes.	F2a, F4b
1. The student makes inference about content, events, characters, setting, author's purpose.	F4b
2. The student interprets the use of literary devices (e.g., figurative language, allusion, diction, dialogue, description, etc.), tone, mood.	F4b
3. The student evaluates literary qualities such as use of language, content, and literary elements.	F4b
4. The student evaluates the suitability of characters' actions in a particular event, the emotional appeal of the text, and/or the author's method (adequacy or validity of the genre and the relevancy of the approach).	F4b
C. The student responds appreciatively to a broad range of culturally significant literary texts written by historical and modern authors.	F4b
1. The student values literary texts representing the rich diversity of American cultural heritage inclusive of ages, genders, nationalities, races, and religions.	F4b
2. The student values literary texts representative of various historical periods ranging from the ancient world to the present.	F4b
3. The student gains esteem from world literature.	F4b
D. The student uses literature as a basis for understanding self and society.	F4b
1. The student perceives literary themes as a means to develop a sense of self and connectedness to others and to develop an awareness of major social and political issues.	F4b
2. The student appreciates the interrelationship between literature and the arts as communication systems expressed through a variety of media.	F4b

Florida

Documents Utilized

Blueprint 2000: A System of School Improvement and Accountability (June 1993)
Transition System: Companion to Blueprint 2000 (1993)

Background

Since 1985, Florida has had curriculum guides that identify the course content and intended outcomes for all courses in grades 6-12. Districts must adopt student-performance standards for each course based on these guidelines. In 1991, the legislature established a commission on student-performance standards, which identified 10 performance standards based on the competencies identified by the U.S. Secretary of Labor's Commission on Achieving Necessary Schools. The content and performance standards describe student learning at different grade levels (e.g., K-3, 4-5, 6-8, and 9-10). In 1993, the state began developing pre-K-12 curriculum frameworks that will identify the essential content in each subject and give sample benchmark outcomes. They will not include state-mandated performance standards.

Note: The following goals did not apply to and were not matched to the NCEO model for grade 4: Graduation Rate and Readiness for Postsecondary Education and Employment, Teachers and Staff, and Adult Literacy.

Florida

	NCEO CODE
GOAL 3: STUDENT PERFORMANCE Students successfully compete at the highest levels nationally and internationally and are prepared to make well-reasoned, thoughtful, and healthy lifelong decisions.	
Standard 1: Florida students locate, comprehend, interpret, evaluate, maintain, and apply information, concepts, and ideas found in literature, the arts, symbols, recordings, video and other graphic displays, and computer files, in order to perform tasks and/or for enjoyment.	
OUTCOMES While performing individual and group tasks, students:	
1. Locate data and determine the main idea or essential message;	F1, F4
2. Identify relevant details and facts;	F4
3. Evaluate accuracy, appropriateness, style, relevance, and plausibility;	F2a
4. Analyze information, concepts, and ideas relative to their own value system;	F2a
5. Use ideas, concepts, and informational resources for aesthetic and recreational purposes;	no match
6. Independently complete a task which requires the use or application of information, concepts, or ideas; and	D1b, F4
7. Evaluate and make valid inferences from new, incomplete, or nonverbal information.	F2a
Standard 2: Florida students communicate in English and other languages using information, concepts, prose, symbols, reports, audio and video recording, speeches, graphic displays, and computer-based programs.	
OUTCOMES While performing individual and group tasks, students:	
1. Completely and accurately record information in writing and other media, and communicate that information, in turn, through a variety of media;	F1a, F3c
2. Compose and create, through a variety of oral, visual, and written media, communications such as letters, reports, directions, manuals, and proposals;	F1a, F3c

Florida

	NCEO CODE
3. In all communications using English and other languages, accurately use language, graphic representations, styles, organizations, and format appropriate to the language, information, concept, or idea and the subject matter, purpose, and audience;	F1a, F3c
4. Prepare communications through a variety of media which include supporting documentation and detail; and	F3c
5. Check, edit, and revise communications to ensure appropriate form, emphasis, grammar, spelling, and punctuation.	F3c
Standard 3: Florida students use numeric operations and concepts to describe, analyze, disaggregate, communicate and synthesize numeric data and to identify and solve problems.	
OUTCOMES	
While performing individual and group tasks, students:	
1. Accurately identify and perform appropriate numeric procedure with problems found in numeric, symbolic, or word form;	F3a
2. Estimate approximate numeric solutions to problems without use of calculating devices; and	F2a, F3a
3. Accurately analyze, synthesize, and evaluate numeric ideas, concepts, and information through appropriate formulae, symbols, theorems, equations, tables, graphs, diagrams, and charts.	F2a, F3a
Standard 4: Florida students use creative thinking skills to generate new ideas, make the best decisions, recognize and solve problems through reasoning, interpret symbolic data, and develop efficient techniques for lifelong learning.	
OUTCOMES	
While performing individual and group tasks, students:	
1. Use imagination, combine ideas or information in new ways, and make connections between seemingly unrelated ideas by discovering a rule or principle underlying the relationship between two or more objects and use the rule or principle to solve a problem;	F2a
2. Clarify goals and recognize constraints to their attainment and evaluate and choose the best alternative;	F2a
3. Recognize that a problem exists, define the problem, investigate possible causes of the problem, identify possible solutions, analyze, evaluate, and select the best solution(s), and implement the solutions;	F2a
4. Organize and intellectually process symbols, pictures, objects, and information in a way which permits the mind to generate the reality of what is being represented; and	F2a
5. Develop and use individually effective and efficient learning techniques that permit them to apply new knowledge and skills in different ways.	F4
Standard 5: Florida students display responsibility, self-esteem, sociability, self-management, integrity, and honesty.	
OUTCOMES	
While performing individual and group tasks, students:	
1. Exert a high level of effort and perseverance toward goal attainment;	D1b
2. Exhibit diligence in reaching high-task accomplishment and performance by setting high standard, paying needed attention to detail, displaying high standard of attendance and punctuality, adapting to variable environments, and approaching and completing tasks with enthusiasm, vitality, and optimism;	A1, A2a, D1b
3. Demonstrate a realistic and positive view of themselves as unique individuals;	G2
4. Demonstrate friendliness, assertiveness, leadership, adaptability, empathy, and politeness in familiar and unfamiliar groups;	G3a, G4a
5. Exhibit interest in what others say and do;	G3a
6. Deal with persons and situations with integrity, reliability, and honesty;	D1, D1a
7. Exhibit civic, personal, and social responsibility;	E1

Florida

	NCEO CODE
8. Demonstrate behaviors that support physical wellness and personal well-being; and	C1, G2
9. Assume a positive role in the family, work place, and community.	D1a
Standard 6: Florida students will appropriately allocate time, money, materials, and other resources.	
OUTCOMES While performing individual and group tasks, students:	
1. Identify and prioritize activities in an appropriate sequence and develop, implement, and adjust an effective schedule in order to accomplish a goal;	F4
2. Prepare a budget appropriate to the activities required for goal attainment; maintain accurate records of actual costs and revenues; and revise the budget plan as needed;	F4
3. Identify and acquire the materials and supplies needed for completion of the activity and anticipate how those materials can be best stored and distributed to complete the activity with the least cost and greatest efficiency; and	F2a, F4
4. Identify the human skills, knowledge, and values necessary to successfully complete the activity; describe how to make successful matches between the persons best capable of completing the activity and the activity itself; and provide meaningful feedback on task completion to those involved.	F4, G4b
Standard 7: Florida students integrate their knowledge and understanding of how social, organizational, informational, and technological systems work with their abilities to analyze trends, design and improve systems, and use and maintain appropriate technology.	
OUTCOMES While performing individual and group tasks, students:	
1. Identify the need for information, select possible information and evaluate its appropriateness, and then obtain the information from existing sources, or create it;	F2a, F4
2. Organize, process, and maintain in a systematic fashion, print and other forms of technologically stored information and transform the information into appropriate formats to enhance the accomplishment of a goal;	F4
3. Analyze trends and the performance of systems to predict the impact of these trends and performances on goal attainment;	F2a
4. Make suggestions to modify existing systems in order to enhance goal attainment;	F2a
5. Select the procedures or technology that will best facilitate goal attainment by visualizing the necessary methods and applicable technology, choosing, installing, and monitoring the device or system which will produce the best results; and	F2a, F5a
6. Demonstrate competence in solving problems in the use of technology, including generating workable solutions and identifying the appropriate person or place from which to obtain the needed assistance.	F2a
Standard 8: Florida students work cooperatively to successfully complete a project or activity.	
OUTCOMES While performing individual and group tasks, students:	
1. Contribute ideas and make suggestions to a group effort to solve a problem or complete an activity in support of attainment of a goal;	A2a, F2a, G4b
2. Assist a group to be successful by doing their own share of the tasks necessary to complete a task and encourage other group members by listening and responding appropriately to their contributions, identifying and building upon the strengths of individual members of the group, helping to resolve differences within the group which impede goal attainment; and	A2a, D1b, E2b, G4b
3. Help others learn by helping them to identify and apply related concepts and theories to the activity, identify needed skills, knowledge, and values which will facilitate goal attainment, and providing meaningful feedback, including reinforcement of others' successful performance.	E2b

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Florida

	NCEO CODE
3. In all communications using English and other languages, accurately use language, graphic representations, styles, organizations, and format appropriate to the language, information, concept, or idea and the subject matter, purpose, and audience;	F1a, F3c
4. Prepare communications through a variety of media which include supporting documentation and detail; and	F3c
5. Check, edit, and revise communications to ensure appropriate form, emphasis, grammar, spelling, and punctuation.	F3c
Standard 3: Florida students use numeric operations and concepts to describe, analyze, disaggregate, communicate and synthesize numeric data and to identify and solve problems.	
OUTCOMES While performing individual and group tasks, students:	
1. Accurately identify and perform appropriate numeric procedure with problems found in numeric, symbolic, or word form;	F3a
2. Estimate approximate numeric solutions to problems without use of calculating devices; and	F2a, F3a
3. Accurately analyze, synthesize, and evaluate numeric ideas, concepts, and information through appropriate formulae, symbols, theorems, equations, tables, graphs, diagrams, and charts.	F2a, F3a
Standard 4: Florida students use creative thinking skills to generate new ideas, make the best decisions, recognize and solve problems through reasoning, interpret symbolic data, and develop efficient techniques for lifelong learning.	
OUTCOMES While performing individual and group tasks, students:	
1. Use imagination, combine ideas or information in new ways, and make connections between seemingly unrelated ideas by discovering a rule or principle underlying the relationship between two or more objects and use the rule or principle to solve a problem;	F2a
2. Clarify goals and recognize constraints to their attainment and evaluate and choose the best alternative;	F2a
3. Recognize that a problem exists, define the problem, investigate possible causes of the problem, identify possible solutions, analyze, evaluate, and select the best solution(s), and implement the solutions;	F2a
4. Organize and intellectually process symbols, pictures, objects, and information in a way which permits the mind to generate the reality of what is being represented; and	F2a
5. Develop and use individually effective and efficient learning techniques that permit them to apply new knowledge and skills in different ways.	F4
Standard 5: Florida students display responsibility, self-esteem, sociability, self-management, integrity, and honesty.	
OUTCOMES While performing individual and group tasks, students:	
1. Exert a high level of effort and perseverance toward goal attainment;	D1b
2. Exhibit diligence in reaching high-task accomplishment and performance by setting high standard, paying needed attention to detail, displaying high standard of attendance and punctuality, adapting to variable environments, and approaching and completing tasks with enthusiasm, vitality, and optimism;	A1, A2a, D1b
3. Demonstrate a realistic and positive view of themselves as unique individuals;	G2
4. Demonstrate friendliness, assertiveness, leadership, adaptability, empathy, and politeness in familiar and unfamiliar groups;	G3a, G4a
5. Exhibit interest in what others say and do;	G3a
6. Deal with persons and situations with integrity, reliability, and honesty;	D1, D1a
7. Exhibit civic, personal, and social responsibility;	E1

Florida

	NCEO CODE
advanced programs and the number and percent still enrolled. In the fall of 1995 school will report the number and percent of students moving from Level 1 to Level 2 to Level 3.	
6. Schools shall report the number and percent of students passing the HSCT by the end of their senior year.	no match
GOAL 4: LEARNING ENVIRONMENT School boards provide a learning environment conducive to teaching and learning.	
Standard 1: Schools provide a learning environment that enables students, teachers, and staff to successfully meet the standards and outcomes identified by this Commission.	
OUTCOMES	
1. Students, teachers, and staff exhibit a positive self-concept and demonstrate high expectations for behavior and achievement.	G2
2. Students, teachers, and staff demonstrate that they view their accomplishments as appropriately recognized and celebrated.	H1a, H3a
3. Students, parents, teachers, staff, and other stakeholders demonstrate that they feel welcome, secure, and positive about the student's school environment and experiences.	H1, H2, H3
4. Students, teachers, and staff view their participation as important, as evidenced by their average daily attendance and participation.	A1a, A2a
5. Schools receive adequate resources and flexibility and demonstrate that their pupil/teacher ratio will ensure high quality teaching and learning and is appropriate to their school improvement plan.	no match
6. Schools receive adequate resource and maximum flexibility and demonstrate that they provide and maintain facilities, materials, equipment, technology, and programs that will ensure high quality teaching and learning and are appropriate to their school improvement plan.	no match
7. Schools exhibit that parents and other stakeholders are involved in classroom activities and participate in school programs.	B2b
GOAL 5: SCHOOL SAFETY AND ENVIRONMENT Communities provide an environment that is drug-free and protects students' health, safety, and civil rights.	
Standard 1: Schools provide an environment for students and staff that promotes good health and is free of violence, weapons, hazard, vandalism, and substance abuse.	
OUTCOMES	
1. A collaborative agreement exists among the school district and other stakeholders to keep the school campus free of disruptive influences, create a mechanism to enhance the environment in the community at large, and establish specific responsibility for maintaining a safe, healthy, and drug-free school environment.	no match
2. Schools collaborate with law enforcement and other stakeholders to ensure a safe school environment that is free of violence, weapons, vandalism, hazard, and substance abuse.	no match
3. Schools collaborate with social service agencies and other appropriate stakeholders to ensure all students participate in comprehensive health education program.	no match
4. Schools collaborate with environmental agencies and other appropriate stakeholders to ensure a safe school environment in all classrooms and laboratories.	no match
Standard 2: Local, state, and federal laws, rules and regulation related to health, safety, and civil rights are enforced. Schools ensure that students and staff are protected from and are not subjected to any and all forms of discrimination and harassment. All programs, activities, and services are inclusive and free of bias.	no match
OUTCOMES	
1. All appropriate stakeholders ensure the civil rights and safety of all members of the school.	no match

Florida

	NCEO CODE
2. Schools ensure equal opportunity for all staff and students to participate in all programs, activities, and services.	no match
3. Schools utilize bias-free assessment measures and instruments for appropriate student placement decisions.	no match
4. Schools develop and implement comprehensive written policies addressing any and all forms of harassment.	no match
5. Schools incorporate standard safety and health practices into the school and school bus environments.	no match
Standard 3: All students demonstrate personal responsibility for contributing to a school and school bus environment that is safe and free of tobacco, alcohol, and other drugs.	
OUTCOMES	
1. Students and other appropriate stakeholders collaborate to develop the Code of Student Conduct to ensure that their schools and school buses are safe and free of tobacco, alcohol, and other drugs.	C1, C2d, E1
KEY DATA ELEMENTS	
1. Schools shall report the number and percent of incidents of violence, weapons, vandalism, substance abuse, and harassment. This information will be collected by the Department of Education in collaboration with other governmental agencies to address the incidence of violence in the schools.	no match
2. Schools shall report the number and percent of the student population enrolled in selected program areas (i.e., gifted, other exceptional education students, vocational education, dropout prevention, early childhood programs, ESOL programs, dual enrollment, advanced placement, and upper level math and science courses) by race, gender, and special population.	A1c
3. Schools shall report the number and percent of suspensions (in-school and out-of-school) and expulsions.	A1b
4. Schools and districts shall report the number and type of agreements with appropriate community agencies, such as law enforcement, health/social services, public libraries, or environmental protection, that will help establish and maintain an environment that is safe, free from health hazards, and free from drugs. The agreements may be negotiated at the school level or at the district level on behalf of the schools, and shall be approved by the school board (see "School Board Responsibilities for Development of Agency Agreements," page 6).	no match
5. Schools shall report information on hazardous conditions in and around school property.	no match

Hawaii

Document Utilized

Student Outcomes for the Foundation Program (May, 1993)

Background

Since 1971, Hawaii has had eight Foundation Program Objectives. Since 1978, they have had Student Performance Expectations for grades 3, 6, 8, 10, and 12 that relate to the Foundation Program Objectives, which are benchmarks to identify students' progress as well as 15 Essential Competencies. In 1991, three more Foundation Program Objectives were added. In 1992, the Performance Expectations for the new Objectives were added, and at the same time, the other Foundation Program Objectives were updated. These outcome statements provide a framework within which each school can set related instructional planning.

Hawaii

	NCEO CODE
FPO 1: DEVELOP BASIC SKILLS FOR LEARNING AND EFFECTIVE COMMUNICATION WITH OTHERS	
CLUSTER A	
Reads for personal enrichment and enjoyment.	no match
Describes self as a reader	G2
Consciously uses language, experience, and thinking cure systems to create meaning with texts.	F1a
Demonstrates uses of an increasing variety of strategies when determining unfamiliar words while reading.	F3b
Adjusts reading rate and use of strategies according to purpose.	F3b
Draws valid conclusions from reading.	F3b
Personally evaluates what is read and cites evidence from text in support of judgment.	F2a, F3b
Develops ease as silent reader.	F3b
CLUSTER B	
Expresses self through writing for various purposes and audiences.	F3b
Uses writing as a tool for learning and discovery.	F3b
Demonstrates a positive attitude about self as a writer.	G2bF3b
Uses a variety of ways to generate ideas for writing (free writing, drawing, talking, etc.).	F3b
Finds a focus for writing and organizes ideas around that focus.	F3b
Uses strategies like place holders to keep the writing flowing.	F3b
Revisits own writing, makes changes, and seeks assistance if needed.	F3b
Uses word processing programs for drafting and making simple revisions.	F5a
Maintains own voice in writings.	F3b
Reads and talks about own writing with others.	F3b
CLUSTER C	
Uses conversation and discussion to share ideas, clarify thoughts, gain knowledge, and create understandings.	F1a
Values speaking as a tool for communication and learning.	F1a
Seeks, acknowledges, and adjusts own message according to feedback in order to clarify meaning.	F1a
Supplies needed details and elaboration to clarify meaning and communicate intended message.	F3b
Supports opinions with clarifying ideas.	F3b
Demonstrates social conventions of communication in conversations and group discussions (turn taking, staying on topic, etc.).	F1, G4

Florida

	NCEO CODE
2. Schools ensure equal opportunity for all staff and students to participate in all programs, activities, and services.	no match
3. Schools utilize bias-free assessment measures and instruments for appropriate student placement decisions.	no match
4. Schools develop and implement comprehensive written policies addressing any and all forms of harassment.	no match
5. Schools incorporate standard safety and health practices into the school and school bus environments.	no match
Standard 3: All students demonstrate personal responsibility for contributing to a school and school bus environment that is safe and free of tobacco, alcohol, and other drugs.	
OUTCOMES	
1. Students and other appropriate stakeholders collaborate to develop the Code of Student Conduct to ensure that their schools and school buses are safe and free of tobacco, alcohol, and other drugs.	C1, C2d, E1
KEY DATA ELEMENTS	
1. Schools shall report the number and percent of incidents of violence, weapons, vandalism, substance abuse, and harassment. This information will be collected by the Department of Education in collaboration with other governmental agencies to address the incidence of violence in the schools.	no match
2. Schools shall report the number and percent of the student population enrolled in selected program areas (i.e., gifted, other exceptional education students, vocational education, dropout prevention, early childhood programs, ESOL programs, dual enrollment, advanced placement, and upper level math and science courses) by race, gender, and special population.	A1c
3. Schools shall report the number and percent of suspensions (in-school and out-of-school) and expulsions.	A1b
4. Schools and districts shall report the number and type of agreements with appropriate community agencies, such as law enforcement, health/social services, public libraries, or environmental protection, that will help establish and maintain an environment that is safe, free from health hazards, and free from drugs. The agreements may be negotiated at the school level or at the district level on behalf of the schools, and shall be approved by the school board (see "School Board Responsibilities for Development of Agency Agreements," page 6).	no match
5. Schools shall report information on hazardous conditions in and around school property.	no match

Hawaii

	NCED CODE
Participates in activities that contribute to feelings of self-worth.	G2a
CLUSTER B	
Describes what one likes to do with friends and family.	no match
Explains how being a member of the family influences how one feels about self.	D1b, G2
Explains how people can help each other feel good about themselves.	no match
Demonstrates behaviors that show understanding of and respect for self and others.	G3a
Demonstrates social behaviors which encourage acceptance by others.	no match
FPO 3: DEVELOP DECISION-MAKING AND PROBLEM-SOLVING SKILLS	
CLUSTER A	
Identifies a simple problem.	F2
Gathers information needed to solve the problem.	F2
Determines relevant information, draws conclusions and arrives at alternative solutions.	F2a
Makes inferences for each alternative and selects a solution based on information collected.	F2
Checks validity of conclusions.	F2
FPO 4: DEVELOP INDEPENDENCE IN AND A LOVE FOR LIFELONG LEARNING	
CLUSTER A	
Sets goals in learning with teacher assistance.	D1
Describes an environment conducive to studying.	no match
Uses time effectively.	no match
CLUSTER B	
Asks questions to gather information.	F, F1
Completes work with supervision.	D1a
Identifies a variety of resources to expand interests and knowledge.	no match
CLUSTER C	
Engages willingly and actively in learning activities.	A2a
Exhibits willingness to try new things, to learn from mistakes and to persevere.	A2a, F
Seeks new experiences and knowledge and shares what is learned.	F, F1
FPO 5: DEVELOP PHYSICAL AND EMOTIONAL HEALTH	
CLUSTER A	
Names the major body parts and their functions.	F4a
Discovers that all living things come from other living things.	F4a
Describes the life cycle of living things.	F4a
Identifies ways in which one grows and develops over a given period of time.	F4a
Describes the role and responsibilities of individuals within the family and how each contributes to the physical and emotional health of other family members.	D1a
CLUSTER B	
Identifies personal health practices which contribute to physical and emotional health.	C1
Identifies different emotions and ways they are shown.	F4
Names different foods that are important to energy, growth, and health.	C2c
Identifies ways in which communicable diseases, including Human Immunodeficiency Virus (HIV) are spread.	C2
Identifies ways tobacco, alcohol, and other substances are used to modify mood and behavior.	C2d
Identifies common sources of accurate health information.	C2

Hawaii

	NCEO CODE
Demonstrates decision-making and refusal skills in making responsible, healthy choices.	C1, F2a
CLUSTER C	
Performs basic body movements.	C3a
Applies body movements to simple games and dances.	C3
Participate in physical fitness activities.	C1b, C3
FPO 6: DEVELOP KNOWLEDGE OF AND PURSUE OPTIONS OF WORK AND CAREER DEVELOPMENT	
CLUSTER A	
Describes how one might develop a desired personal trait.	F4
Identifies personal characteristics which one would like to acquire.	G
Identifies personal characteristics of self and others.	G
CLUSTER B	
Identifies subjects one likes and in which one does well.	no match
CLUSTER C	
Identifies various careers which are of personal interest.	no match
Describes different careers in the community or school.	no match
Describes various tasks performed by people in the home, school, and community.	no match
CLUSTER D	
Describes how home responsibilities can be divided and/or shared among family members.	D1a
Describes how classroom responsibilities can be shared among class members and how everyone can help the class operate smoothly.	D1a, E1c
FPO 7: DEVELOP RESPONSIBILITY TO SELF AS WELL AS TO OTHERS	
CLUSTER A	
Describes the roles and functions of the family and schools.	D, E1
Explains the relationship of family to the larger community.	D2b
Describes how the school is organized.	F4
CLUSTER B	
Listens and participates in class discussions.	A2a
Respects the rights of others to differ in group discussions.	G3a
Identifies groups that work to solve community problems.	no match
CLUSTER C	
Explains the needs for rules in any group situation.	E1c
Recognizes different kinds of authority.	E1
Participates in developing classroom rules.	E2a
Follows school and classroom rules.	E1
FPO 8: DEVELOP CREATIVE POTENTIAL AND AESTHETIC SENSITIVITY	
CLUSTER A	
Describes feelings evoked by the natural and built environments and by the creative works of people from various cultures.	F4b
Discerns the elements of the arts in the environment or in creative works.	F4b
Explores the use of the elements of the arts in creative works.	F4b
Describes the need for beauty in one's environment.	F4b

Hawaii

	NCEO CODE
CLUSTER B	
Observes, listens, and shares in experiences in the arts.	F4b
Responds to stimuli through oral, written, visual, musical or kinesthetic modes.	F4b
Experiments with media, materials, techniques, or modes of expression to express ideas, feelings, and experiences.	F4b
FPO 9: DEVELOP LEADERSHIP AND COOPERATIVE SKILLS	
CLUSTER A	
Describes qualities of a leader.	no match
Follows through on assignments or tasks.	D1b
CLUSTER B	
Listens attentively and responds to speaker.	F4
Demonstrates willingness to contribute ideas in a group situation.	A2a, D1a, G4b
Demonstrates respect for the contributions of group members.	G4b
Demonstrates courtesy and patience in group situations.	G4b
FPO 10: DEVELOP GLOBAL AWARENESS, KNOWLEDGE, AND UNDERSTANDING	
CLUSTER A	
Describes different ways in which people inhabit, modify, and adapt culturally to natural environment.	F4a
Communicates with students in other locations via telecommunications technologies.	F1a, F5a
Identifies the relationship of self with family and local community.	G
Identifies how classroom and home behaviors affect others.	no match
CLUSTER B	
Recognizes the different ways people express themselves and communicate with others.	G3b
Participates in interactive cross-cultural activities.	G3b
Interacts positively with people from different communities and cultures.	G3b
FPO 11: DEVELOP A CONCERN FOR PRESERVING AND RESTORING OUR ENVIRONMENT	
CLUSTER A	
Identifies and compares natural and built environments.	F4a
Explains the need for rules to protect the environment.	E1
Identifies and describes needs of a community.	F4a
Identifies and discusses examples of local and state environmental issues.	F4a
Identifies factors that may upset local, global, and universal ecological balance.	F4a
Suggests ways in which the immediate environment can be improved.	F4a
CLUSTER B	
Expresses in a variety of ways feelings evoked by natural and built environments.	no match
Identifies physical aspects of the environment which influences self and others.	F4a
Gives examples of negative and positive ways humans can change the environment.	F4a
Exhibits concern for the environment by practicing conservation and preservation.	E1a

Hawaii

	NCEO CODE
Demonstrates decision-making and refusal skills in making responsible, healthy choices.	C1, F2a
CLUSTER C	
Performs basic body movements.	C3a
Applies body movements to simple games and dances.	C3
Participate in physical fitness activities.	C1b, C3
FPO 6: DEVELOP KNOWLEDGE OF AND PURSUE OPTIONS OF WORK AND CAREER DEVELOPMENT	
CLUSTER A	
Describes how one might develop a desired personal trait.	F4
Identifies personal characteristics which one would like to acquire.	G
Identifies personal characteristics of self and others.	G
CLUSTER B	
Identifies subjects one likes and in which one does well.	no match
CLUSTER C	
Identifies various careers which are of personal interest.	no match
Describes different careers in the community or school.	no match
Describes various tasks performed by people in the home, school, and community.	no match
CLUSTER D	
Describes how home responsibilities can be divided and/or shared among family members.	D1a
Describes how classroom responsibilities can be shared among class members and how everyone can help the class operate smoothly.	D1a, E1c
FPO 7: DEVELOP RESPONSIBILITY TO SELF AS WELL AS TO OTHERS	
CLUSTER A	
Describes the roles and functions of the family and schools.	D, E1
Explains the relationship of family to the larger community.	D2b
Describes how the school is organized.	F4
CLUSTER B	
Listens and participates in class discussions.	A2a
Respects the rights of others to differ in group discussions.	G3a
Identifies groups that work to solve community problems.	no match
CLUSTER C	
Explains the needs for rules in any group situation.	E1c
Recognizes different kinds of authority.	E1
Participates in developing classroom rules.	E2a
Follows school and classroom rules.	E1
FPO 8: DEVELOP CREATIVE POTENTIAL AND AESTHETIC SENSITIVITY	
CLUSTER A	
Describes feelings evoked by the natural and built environments and by the creative works of people from various cultures.	F4b
Discerns the elements of the arts in the environment or in creative works.	F4b
Explores the use of the elements of the arts in creative works.	F4b
Describes the need for beauty in one's environment.	F4b

Idaho

	NCEO CODE
diagrams, or models as appropriate.	
Development and Implementation Strategies. Alternative strategies for solving or addressing problems and issues are identified and evaluated.	F2a
Verification of Results. Results are related to prior knowledge and evaluated for reasonableness.	F2a
4. An Idaho fourth grader demonstrates creativity and originality in the design, production, and presentation of activities.	D1b
LIST OF TRAITS	
Creativity and Originality. Innovative methods of design, production, and presentation are explored.	no match
5. An Idaho fourth grader critiques and evaluates the quality of work products and process.	F2a
LIST OF TRAITS	
Group and Self-Evaluation. Individuals and groups are able to critique their own work and the work of others.	F2a
Identification of Strengths. Evidence of ability, talent, and knowledge are identified within the performance and related to previous performances.	no match
Identification of Weaknesses. Areas for further improvement are identified and discussed.	F2a, G2c
6. An Idaho fourth grader demonstrates the ability and skills to work collaboratively.	G4b
LIST OF TRAITS	
Monitor Behavior. Personal behavior in group activities is monitored and consideration for individual differences is demonstrated.	G3b, G3c
Team Skills. Active listening and participation skills are used in group activities.	A2a
Provide Feedback. Constructive comments on cooperative work are given and received.	no match
Group Functioning. How the group does its work is assessed and managed with conflict resolution skills used to solve problems.	F2a, G4b
Ethnic and Racial Differences. Learns to live in a changing society with mutual respect and appreciation for others.	G3b
7. An Idaho fourth grader demonstrates characteristics of an effective and lifelong learner.	no match
LIST OF TRAITS	
Vision. Goals and Priorities are identified.	no match
Self-Esteem. A positive vision of self and others is developed. A positive desire to learn is demonstrated.	G2a, G3a
Initiative and Perseverance. The desire and ability to plan, implement, and conclude a project over time is demonstrated.	D1b
Responsibility. Responsibility for personal actions is assumed.	D3
Adaptability. Changes and challenges are dealt with in a positive way.	G1
Skills of Strategic Learner. A variety of strategies for learning are explored.	F4

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An Overview of IGAP Performance Standards for Reading, Mathematics, Writing, Science, Social Sciences (1993)

Background

The Illinois Academic Standards Project is currently developing academic standards in the fine arts, foreign languages, language arts, mathematics, physical development and health, science, and social sciences. The project is also identifying connections across subjects and incorporating the basic skills needed for employment and citizenship. These academic standards include both content standards and performance benchmarks. Standards describe student learning for grades K-3, 3-5, 5-8, 8-10 and 10-12. The standards will include benchmarks at grades 3, 5, 8, 10 and 12. The standards will be fully correlated with performance standards for the state assessment system.

Illinois

READING PERFORMANCE DEFINITIONS	NCEO CODE
The state goal for reading requires that as a result of their schooling, students will be able to read, comprehend, interpret, evaluate, and use written material. To assess this goal, the reader attributes presented below assume that the reading and thinking process that students use varies little across grades. Successful, facile readers at all levels must be able to predict, make inferences, evaluate information, interpret, and apply information that they have read.	F2a, F3b
Level 1: Level 1 students may not be able to read material that is appropriate to their grade. Particularly at the upper grades, they do not think of themselves as readers and often fail to value reading for personal purposes. As a result, they may exhibit aberrant response patterns on tests or give up. They often respond negatively to items about reading habits, attitudes and dispositions. In some cases, **grade 3 and 6, level 1** students display positive attitudes toward reading but they have not progressed in ability to a level 2 reader year.	
Attribute: They can process explicitly stated information inconsistently. Indicator: They often, but not always, identify specific details as answers to text-based questions. Attribute: They fail to exhibit balance between text and personal knowledge: They over-rely on specific pieces of information. Indicator: They are easily misled by distractions that contain important but irrelevant words from the text. Attribute: They fail to exhibit balanced text and personal knowledge: They over-rely on prior knowledge. Indicator: They are easily misled by distractions that are not applicable to this particular questions although possibly applicable in everyday experience.	
Level 2: Level 2 students are able to read material appropriate to their grade. They have the motivation, skill, and strategies to persist in completing reading tasks. They think of themselves as readers and engage in some voluntary reading. They respond positively to some questions about reading habits, attitudes, and dispositions.	
Attribute: They can reliably process explicitly stated information in the text. Indicator: They respond accurately to most text-explicit terms. Attribute: They use their personal knowledge to interpret and construct meaning. Indicator: They respond accurately to some items that focus on interpretation.	

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Attribute: Knowledge of text and genre (Grade 3): They approach the texts as a meaningful unit and recognize that attending to the author's structure, particularly in stories, aids comprehension and recall.

Indicator: They respond with similar degrees of accuracy to text-based statements of main ideas, summaries, and themes about narrative and expository texts.

Attribute: When directed to do so, they can retain information to summarize and synthesize.

Indicator: They respond with a moderate of accuracy to main ideas, summaries, and themes that are fairly close to the text.

Level 3: In addition to the attributes of the level 2 reader, students who operate at level 3 easily read grade-level text and make appropriate connections and associations. They demonstrate high levels of success on a variety of items. They think of themselves as able readers and value reading as a personally rewarding voluntary activity. They respond positively to reading survey items measuring habits, attitudes, and dispositions.

Attribute: They read interactively and adaptively, approaching text from their own perspective and/or the author's, as appropriate.

Indicator: They show similar patterns of success on measures of narrative and expository comprehension.

Attribute: They balance and assess the place and importance of ideas from the text and personal knowledge to construct and revise meaning.

Indicator: They demonstrate high levels of success on a variety of items.

Attribute: They consistently and continuously summarize, integrate, and synthesize ideas within and across texts.

Indicator: They respond accurately to items that assess main ideas, summaries, and themes regardless of whether they are restatements or more abstract elaborations of ideas from the text.

Attribute: They monitor their reading and adapt their reading strategies to their purpose, their personal knowledge, and the demands of the text.

Indicator: They respond accurately to a variety of constructing meaning items as well as reading strategies items.

Attribute: They are familiar with and sensitive to different genres (e.g., narrative and expository).

Indicator: They show comparable patterns of success on both narrative and expository texts.

Attribute: Literary devices (grades 3 and 6): They are familiar with and can understand texts that exhibit the application of rudimentary literary devices such as figurative language and point of view.

Indicator: They select more that one correct alternative, even when alternatives represent different ways of reasoning.

Attribute: They can apply information and/or insights to new situations, problems, or texts.

Indicator: They respond accurately to transfer and application.

MATHEMATICS PERFORMANCE DEFINITIONS

Mathematics definitions incorporate the seven state goals for learning in mathematics and elements of the goals for mathematical literacy established by the National Council of Teachers of Mathematics. The definitions describe students who can solve problems, communicate, reason, and make connections within and across the broad content areas of mathematics using currently available technology. The seven goals for learning mathematics are: F1a, F2a, F3a

1. Number Concepts and Skills F3a
   This goal includes the ability to model, read, write, compute, and reason with numbers in a variety of settings. The ability to add, subtract, multiply, and divide, using whole numbers, integers, fractions, and decimals reflects this goal.

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An Overview of IGAP Performance Standards for Reading, Mathematics, Writing, Science, Social Sciences (1993)

Background

The Illinois Academic Standards Project is currently developing academic standards in the fine arts, foreign languages, language arts, mathematics, physical development and health, science, and social sciences. The project is also identifying connections across subjects and incorporating the basic skills needed for employment and citizenship. These academic standards include both content standards and performance benchmarks. Standards describe student learning for grades K-3, 3-5, 5-8, 8-10 and 10-12. The standards will include benchmarks at grades 3, 5, 8, 10 and 12. The standards will be fully correlated with performance standards for the state assessment system.

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READING PERFORMANCE DEFINITIONS	NCEO CODE
The state goal for reading requires that as a result of their schooling, students will be able to read, comprehend, interpret, evaluate, and use written material. To assess this goal, the reader attributes presented below assume that the reading and thinking process that students use varies little across grades. Successful, facile readers at all levels must be able to predict, make inferences, evaluate information, interpret, and apply information that they have read.	F2a, F3b
Level 1: Level 1 students may not be able to read material that is appropriate to their grade. Particularly at the upper grades, they do not think of themselves as readers and often fail to value reading for personal purposes. As a result, they may exhibit aberrant response patterns on tests or give up. They often respond negatively to items about reading habits, attitudes and dispositions. In some cases, **grade 3 and 6, level 1** students display positive attitudes toward reading but they have not progressed in ability to a level 2 reader year.	
Attribute: They can process explicitly stated information inconsistently. Indicator: They often, but not always, identify specific details as answers to text-based questions. Attribute: They fail to exhibit balance between text and personal knowledge: They over-rely on specific pieces of information. Indicator: They are easily misled by distractions that contain important but irrelevant words from the text. Attribute: They fail to exhibit balanced text and personal knowledge: They over-rely on prior knowledge. Indicator: They are easily misled by distractions that are not applicable to this particular questions although possibly applicable in everyday experience.	
Level 2: Level 2 students are able to read material appropriate to their grade. They have the motivation, skill, and strategies to persist in completing reading tasks. They think of themselves as readers and engage in some voluntary reading. They respond positively to some questions about reading habits, attitudes, and dispositions.	
Attribute: They can reliably process explicitly stated information in the text. Indicator: They respond accurately to most text-explicit terms. Attribute: They use their personal knowledge to interpret and construct meaning. Indicator: They respond accurately to some items that focus on interpretation.	

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Algebraically, level 2 students can solve addition and subtraction number sentences. They use appropriate symbols for "greater than," "equal to," and "less than" relationships and are beginning to translate phrases from verbal or written to symbolic form in order to correctly express addition and subtraction relationships. They have acquired the skills of describing data from simple bar graphs and frequency charts that represent a set of data. They have also developed the ability to represent real-world information in these forms for interpretation by others.	F3a
Overall, level 2 students have a solid grasp of the mathematics presented in school, including problem-solving, reasoning, and communication skills. They have developed the ability to use a hand calculator to perform computations and to check some of their guesses about problem situations but they are not yet productive users of technology.	F3a
Grade 3, Level 3: Level 3 students understand and are able to use fact families for addition, subtraction, multiplication, and division. Their use of related facts extends to checking computations, mental mathematics abilities, and structuring models. These students also have the ability to use properties of operations informally to justify their work. These students translate and solve two-step application problems involving addition and subtraction. They are able to choose appropriately from among any of the four basic operations to solve a problem. Furthermore, they can take information and formulate a meaningful question that arises from that set of data. They are able to use trial-and-error approaches to problem-solving and estimate answers they expect to receive in computation or problem-solving situations.	F2a, F3a
Level 3 students can apply their skills with rulers and measures to real-life settings. More specifically, they can determine the perimeter of a polygonal region. They are familiar with both metric and customary units for weight, mass, length, area, and volume. They can compare and contrast the measurement units they have studied. In geometric settings they understand, can identify, and can apply congruent (same shape and size) figures. Furthermore, they can identify symmetry and locate the line(s) of symmetry in complex figures.	F3a
Algebraically, level 3 students can write number sentences for situations that involve addition, subtraction, and multiplication. They can solve these sentences for multi-step addition and subtraction problems involving whole numbers. They are able to analyze a simple data problem, identify what data are required, and collect and record the needed data. Using simple graphs and charts, they can make elementary predictions from the data and explain why they think a pattern will hold.	F3a
Overall, level 3 students have a firm grasp of the mathematics they have studied at grade 3 and are already extending it to solve problems in their daily lives. They are developing patterns of reasoning and communication that are consistent with strong patterns of mathematical thought. They use calculators as tools in the problem-solving process and have elementary skills related to the use of computer software in conceptualizing and studying mathematical concepts. These students are making exceptional progress in their study of mathematics and applying the knowledge gained to understanding their world.	F2a, F3a, F5a
WRITING PERFORMANCE DEFINITIONS	
The state goal for writing states that as a result of their schooling, students will be able to write standard English in a grammatical, well-organized and coherent manner for a variety of purposes. To ascertain whether students meet the state goal for writing, IGAP assesses students' abilities to write for three broad purposes:	F3c
Persuasive: There are two types of assignments: The position paper in which students take a position and develop one side of an argument or the problem/solution paper in which students develop both a problem and a solution.	F3c
Expository: Students are asked to explain, interpret, or describe something based upon background experiences or information provided in the prompt. These assignments differ	F3c

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	NCEO CODE
from the narrative in that the writer does not include personal reactions or feelings in describing or presenting information.	
Narrative: There are two types of assignments: The paper in which students recount and reflect upon a personally significant experience of the paper in which students report and record reactions to an observed event. For assignments in which students share or recount personal experiences, they are expected to describe the action and their reactions. In reports of observed events, students also narrate an event and describe the reactions of participants.	F3c
All of the writing assignments tap students' abilities to write about background experience and general academic content. Both sources of knowledge form the basis of students' understanding and interpretation. Students are not expected to have specific knowledge of content area in order to respond to the state assessment prompt. The paper is not evaluated on the basis of wrong or right answers but rather the credibility and logic of the support and elaboration in regard to the assignment. Furthermore, the assessment calls upon a range of higher-order thinking skills including comparison, interpretation, and evaluation.	
The writing features that raters use to score essays are defined as follows:	
Integration: Evaluation of the essay based on a judgment of how effectively the composition as a whole uses the basic features to address the assignment.	
Focus: The clarity with which a composition presents a clear main idea, point of view, theme, or unifying event.	
Support/Elaboration: The degree to which the main point or event is elaborated and explained by specific details and reasons.	
Organization: The clarity and/or coherence of the logical flow of ideas and the explicitness of the text structure or plan.	
Conventions: The use of standard written English.	
Grade 3, Level 1: The students at the top of this level write papers which are partially developed with some or one of the features not sufficiently formed, but all present. The reader is often required to infer meaning. The students at the lowest end of the spectrum produce papers with only the rudiments of techniques for forming focus, organization, and support or may not have sufficient writing to show that criteria are met for one or more of the features. Some level 1 students have numerous convention errors without mastery of sentence construction making it difficult to communicate. Some students at this level have numerous convention errors in relation to the amount written.	F3c
Grade 3, Level 2: The students at this level write partially developed papers in which all features are present but are not sufficiently formed. The reader is often required to infer meaning. Some level 2 students have few conventions errors and a mastery of sentence construction while others have some major errors.	F3c
Grade 3, Level 3: The students at this level write partially developed papers in which the features are all present but are not sufficiently formed. Some features such as focus may be more developed, but for the most part, the paper is simple, informative, and clear, presenting little more than the essentials. Level 3 students show sufficient evidence of mastery of sentence construction with only a few errors, given the length of the paper and the writing conditions.	F3c
SCIENCE PERFORMANCE DEFINITIONS	
The four goals in science comprise the science performance definitions. As a result of their school, students will have a working knowledge of:	
Goal 1: The concepts and basic vocabulary of biological, physical, and environmental sciences and their application to life and work in contemporary technological society.	F4a

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	NCEO CODE
Goal 2: The social and environmental implication and limitations of technological development.	F4a
Goal 3: The principles of scientific research and their application in simple research projects.	F4a
Goal 4: The processes, techniques, methods, equipment, and available technology of science.	F4a
Science, in its quest for objective truth, provides a conceptual framework for the understanding of natural phenomena and their causes and effects. The purpose of establishing a performance definitions is to provide guidelines for the development of students who understand and use that framework productively and creatively. Scientifically knowledgeable students understand the basic concepts and principles of science; recognize the reciprocal relationships among science, technology, and society; know the difference between objective fact and subjective value; understand the logic of experimental design; and use scientific instruments, units, and safety practices appropriately. Most importantly, they can apply their knowledge and skills in problem-solving and decision-making. In doing so, science students reason critically; evaluate hypotheses empirically; reach evidence-based decisions logically; and communicate results clearly, honestly and openly. In broad terms:	F1a, F2a, F4a
Level 1: Describes students who do not meet the state goals for science. They may recognize, but do not fully understand, the fundamental content or processes of science appropriate for their age. This is to say they may know the "what" with respect to the content and processes of science but do not understand "why," (i.e., do not grasp the reasons or principles which govern them). They view science as static, comprising only facts or recipes. Their conclusions are often guided more by preconception than by empirical evidence.	F4a
Level 2: Describes students who meet the state goals for science. They have clearly mastered the fundamental content and processes of science appropriate for their age. What distinguishes them from level 1 students is that they also have begun to understand the principles and laws which govern relationships among concepts and processes (i.e., "why"). They understand them, however, only in the context in which they are learned. They begin to view science as dynamic but are seldom able to apply their knowledge and skills to novel or unfamiliar topics. They attempt to ground their conclusions in empirical information.	F4a
Level 3: Describes students who exceed the state goals for science. What distinguishes them from the level 1 and level 2 students is that they also can use science concepts and principles to pose and solve problems. Further, they identify similarities of relationships among phenomena and know how to extend their knowledge and skills to new problems independently and creatively. They base their predictions and conclusions on available information and view science as dynamic, useful, and applicable to everyday life.	F2a, F4a
GRADE 4: GOAL 1	
Level 1: Students may recognize important scientific concepts in the physical, biological, and earth sciences such as motion (speed) 2, force (magnetism, electricity, gravity); evolution (plant and animal adaptation); patterns of physical, chemical, and biological change (cycles, state of matter, fire, stages of growth); and forces that shape Earth (wind, water, volcanoes, earthquakes). Using the water cycle as illustration, these students know that water on Earth can become water in the sky and fall back to Earth as rain. However, they do not fully grasp the concepts of evaporation and condensation, their importance to the water cycle, or what drives them. They tend to know "what" (they sometimes can describe phenomena and label them correctly) but have difficulty with "why" (principles, laws). They therefore tend to think of science as discrete facts and do not explain phenomena or extend concepts appropriately.	F4a
Level 2: Students also recognize important scientific concepts such as the examples used above. For example, they know that water may become vapor, condense, and fall as rain. As well, they grasp the concepts of evaporation and condensation, their importance to the water cycle, and some of the factors that drive them such as the importance of energy and	F4a

	NCEO CODE
from the narrative in that the writer does not include personal reactions or feelings in describing or presenting information.	
Narrative: There are two types of assignments: The paper in which students recount and reflect upon a personally significant experience of the paper in which students report and record reactions to an observed event. For assignments in which students share or recount personal experiences, they are expected to describe the action and their reactions. In reports of observed events, students also narrate an event and describe the reactions of participants.	F3c
All of the writing assignments tap students' abilities to write about background experience and general academic content. Both sources of knowledge form the basis of students' understanding and interpretation. Students are not expected to have specific knowledge of content area in order to respond to the state assessment prompt. The paper is not evaluated on the basis of wrong or right answers but rather the credibility and logic of the support and elaboration in regard to the assignment. Furthermore, the assessment calls upon a range of higher-order thinking skills including comparison, interpretation, and evaluation.	
The writing features that raters use to score essays are defined as follows:	
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Support/Elaboration: The degree to which the main point or event is elaborated and explained by specific details and reasons.	
Organization: The clarity and/or coherence of the logical flow of ideas and the explicitness of the text structure or plan.	
Conventions: The use of standard written English.	
Grade 3, Level 1: The students at the top of this level write papers which are partially developed with some or one of the features not sufficiently formed, but all present. The reader is often required to infer meaning. The students at the lowest end of the spectrum produce papers with only the rudiments of techniques for forming focus, organization, and support or may not have sufficient writing to show that criteria are met for one or more of the features. Some level 1 students have numerous convention errors without mastery of sentence construction making it difficult to communicate. Some students at this level have numerous convention errors in relation to the amount written.	F3c
Grade 3, Level 2: The students at this level write partially developed papers in which all features are present but are not sufficiently formed. The reader is often required to infer meaning. Some level 2 students have few conventions errors and a mastery of sentence construction while others have some major errors.	F3c
Grade 3, Level 3: The students at this level write partially developed papers in which the features are all present but are not sufficiently formed. Some features such as focus may be more developed, but for the most part, the paper is simple, informative, and clear, presenting little more than the essentials. Level 3 students show sufficient evidence of mastery of sentence construction with only a few errors, given the length of the paper and the writing conditions.	F3c
SCIENCE PERFORMANCE DEFINITIONS	
The four goals in science comprise the science performance definitions. As a result of their school, students will have a working knowledge of:	
Goal 1: The concepts and basic vocabulary of biological, physical, and environmental sciences and their application to life and work in contemporary technological society.	F4a

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	NCEO CODE
accuracy or inappropriate units. Their ability to understand or communicate the procedures or results of their investigations is limited to literal descriptions and simple phrases and may include nonessential or incomplete information. They have difficulty following basic safety procedures during investigations.	
Level 2: Students can use the basic science skills cited above. They can use appropriate scientific measurement equipment with some degree of accuracy, using appropriate units. They usually are able to use simple charts, graphs, and data tables to communicate important results of experiments or projects. They follow basic safety procedures during investigations and understand the reasons for them. They show adequate grasp of models, scales, and scientific units.	F2a, F4a
Level 3: Students use the basic skills cited above appropriately. They use a variety of measuring techniques with accuracy and can use appropriate units. They use scales, models, and metric units as tools. They turn data into information consistently. Specifically, they can construct data tables, charts, and graphs and use them to interpret and communicate their results. They choose procedures and techniques independently and logically extend them to similar topics of investigation. They follow safety procedures effectively.	F2a, F4a
SOCIAL SCIENCE PERFORMANCE DEFINITIONS	
The five state goals for the social sciences provide students with an understanding of themselves and of society, prepare them for citizenship in a democracy, and offer them a foundation for understanding the complexities of the world community. As a result of their schooling, students will be able to:	
Goal 1: Understand and analyze comparative political and economic systems with an emphasis on the political and economic systems of the United States;	F4a
Goal 2: Understand and analyze events, trends, personalities, and movements shaping the history of the world, the United States, and Illinois;	F4a
Goal 3: Demonstrate a knowledge of the basic concepts of the social sciences and how these help to interpret human behavior;	F4a
Goal 4: Demonstrate a knowledge of world geography with an emphasis on the United States; and	F4a
Goal 5: Apply the skills and knowledge gained in the social sciences to decision-making in life situations.	F4a
These goals extend beyond history and geography to encompass economics, governments, and the behavioral sciences. In addition, they address the application of this knowledge and skill in decision-making. The study of the social sciences requires students to recall relevant content; to interpret maps, charts, graphs, and cartoons; to distinguish fact from opinion and relevant from irrelevant information; to solve problems systematically; and to access information. Therefore, the extent to which students are able to show these skills provides the framework for distinguishing among students at each of the three performance levels. As well as specifically addressing the five goals, these definitions build upon the work of various organizations such as the national council of the Social Studies, National Council for History Education, and the National Council for Geographic Education. They also build upon the efforts of the National Assessment of Educational Progress in the areas of history and geography education.	F2a, F4a
Grade 4, Level 1: Level 1 students exhibit an inconsistent understanding of the information and ideas presented to them. They are able to identify a few of the more significant personalities, events, terms, and location. They often cannot articulate a complete definition or description or integrate the information in any significant way. For example, they can name the continents but lack understanding of their locations and environments.	F4a

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Illinois

	NCEO CODE
Level 1 students can use maps and globes and simple charts, graphs, and tables. However, they are limited to one-step translation of the data contained in such sources. For example, they may be able to determine the population of a particular community from a table that lists only cities and their respective populations. Even simple comparative questions will be problematic for these students. They show minimal ability to analyze part-whole, fact-opinion, cause-effect, or relevant-irrelevant relationships.	F4a
These students generally apply social science skills illogically in decision-making. They are unable to judge a solution as appropriate or inappropriate or propose alternative solutions. For example, they are unable to foresee the consequences of their choices. Students who operate at Level 1 have trouble accessing information without step-by-step guidance.	F4a
Grade 4, Level 2: Level 2 students are able to recall significant persons and events and to define basic concepts from the social sciences with some measure of consistency. They are able to use basic tools such as maps and globes and to interpret tabular and pictorial data. They are able to access sources of information in only general directions. Level 2 students are conversant with the geographic themes of location, place, and region and can use them to describe their environment.	F4a
Students at level 2 can outline the basic structure of the U.S. political and economic systems. They are able to make limited comparisons between varied economic and political systems even though they may not yet have mastered every concept. For example, these students are able to compare the economic and political systems of Illinois to those of the United States.	F2a, F4a
These students can follow a two- or three-step problem-solving process, particularly as a group. Most students at this level can plot a route on a map from written or oral directions. Their ability to analyze part-whole, fact-opinion, cause-effect, and relevant-irrelevant relationships shows some consistency.	F2a, F4a
Grade 4, Level 3: Level 3 students demonstrate greater consistency than Level 2 students in the recall of information, interpretation and analysis of data, solution of problems, and acquisition of information from a variety of resources. Their knowledge is integrated and is not bound by disciplinary definitions. Further, they can pursue a multi-step procedure using tools and concepts from the social sciences.	F2a, F4a
They can use historical, geographic, or social science themes to organize topics and to incorporate information from outside the classroom into their understanding of the subject. They make connections that integrate the social sciences, other subjects, and the world around them.	F2a, F4a

Indiana

Documents Utilized

Special Education Program Improvement Manual (January, 1990)
Indiana Educator: A Guide to Indiana's Comprehensive Assessment System (Spring 1994)

Background

In July 1993, the State Board of Education adopted Essential Skills Content Standards in mathematics and language arts for grades 3, 4, 8, 10, and 12. These standards represent what students are expected to know, and they form the basis of statewide assessments. The Essential Skills Content Standards were developed by thousands of educators in Indiana. The 1990 Special Education Improvement Manual specified Indiana's Effectiveness Indicators for Special Education, a list of indicators for program success that relates to 10 areas of programming.

Indiana

	PROGRAM AND STUDENT OUTCOMES (Special Education)	NCEO CODE
	An effective educational program ensures the development of academic, vocational, and social competencies commensurate with each student's potential and fosters a high sense of satisfaction in the individuals who are major stakeholders in the process (students, parents, teachers, administrators, district staff, school board, and community). Students with handicaps need to be satisfied with the educational services they have received and feel that the total program has met their needs by preparing them to function as productive citizens in their community. Other stakeholders need to be confident that school programs will lead to successful achievement and positive benefits for all students. (Note: Priority indicators are marked with an asterisk.)	
10.1	**STUDENT PERFORMANCE**	
10.1.1	Attendance, graduation, dropout, and suspension rates of students with handicaps compare favorably with rates of regular education students.	A1a
10.1.3	Non and limited English proficient students with handicaps progress at a satisfactory rate in their special education and regular education programs.	no match
10.1.4	Students with handicaps develop academic competencies:*	no match
10.1.4.1	Commensurate with their abilities, they develop competencies in appropriate academic curriculum areas such as reading, language arts, mathematics, science, social studies, cultural arts, and technology; and	F3a, F3b, F3c, F4a, F4b, F5a
10.1.4.2	They achieve or go beyond their individualized educational program (IEP) goals and objectives in academic areas.	no match
10.1.5	Students with handicaps develop vocational competencies commensurate with abilities and interests.*	no match
10.1.5.1	They acquire job preparation and vocational skills.	no match
10.1.5.2	They demonstrate pre-employment competencies such as:	no match
10.1.5.2.1	Ability to identify career or vocational interest.	no match
10.1.5.2.2	Knowledge of selected career and requisite skills and attributes.	
10.1.5.2.3	Ability to identify training and employment options and opportunities, and ability to seek employment or further education or training.	
10.1.5.3	As appropriate, students develop job-specific skills including knowledge and skills normally required to carry out entry-level tasks of a specific occupation or cluster of occupations; and	no match

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Illinois

	NCEO CODE
Level 1 students can use maps and globes and simple charts, graphs, and tables. However, they are limited to one-step translation of the data contained in such sources. For example, they may be able to determine the population of a particular community from a table that lists only cities and their respective populations. Even simple comparative questions will be problematic for these students. They show minimal ability to analyze part-whole, fact-opinion, cause-effect, or relevant-irrelevant relationships.	F4a
These students generally apply social science skills illogically in decision-making. They are unable to judge a solution as appropriate or inappropriate or propose alternative solutions. For example, they are unable to foresee the consequences of their choices. Students who operate at Level 1 have trouble accessing information without step-by-step guidance.	F4a
Grade 4, Level 2: Level 2 students are able to recall significant persons and events and to define basic concepts from the social sciences with some measure of consistency. They are able to use basic tools such as maps and globes and to interpret tabular and pictorial data. They are able to access sources of information in only general directions. Level 2 students are conversant with the geographic themes of location, place, and region and can use them to describe their environment.	F4a
Students at level 2 can outline the basic structure of the U.S. political and economic systems. They are able to make limited comparisons between varied economic and political systems even though they may not yet have mastered every concept. For example, these students are able to compare the economic and political systems of Illinois to those of the United States.	F2a, F4a
These students can follow a two- or three-step problem-solving process, particularly as a group. Most students at this level can plot a route on a map from written or oral directions. Their ability to analyze part-whole, fact-opinion, cause-effect, and relevant-irrelevant relationships shows some consistency.	F2a, F4a
Grade 4, Level 3: Level 3 students demonstrate greater consistency than Level 2 students in the recall of information, interpretation and analysis of data, solution of problems, and acquisition of information from a variety of resources. Their knowledge is integrated and is not bound by disciplinary definitions. Further, they can pursue a multi-step procedure using tools and concepts from the social sciences.	F2a, F4a
They can use historical, geographic, or social science themes to organize topics and to incorporate information from outside the classroom into their understanding of the subject. They make connections that integrate the social sciences, other subjects, and the world around them.	F2a, F4a

Indiana

		NCEO CODE
10.2.3.2	Staff are satisfied with the inclusion of students with handicaps within the regular education programs and have positive attitudes toward special education.	H3b
10.2.3.3	Staff are satisfied with the special education program and services in such areas as policies and procedures, instructional delivery and results, and in-service training.	H3b
10.2.4	Employers' Satisfaction	
10.2.4.1	Employers express willingness to employ students/graduates with handicaps and are satisfied with the performance of these students and graduates.*	H3a
10.2.5	School Board and Community	
10.2.5.1	The school board indicates support for the special education program through the allocation of necessary resources.	no match
10.2.5.2	Students with handicaps are viewed positively and treated well in the community.*	no match
10.2.5.3	Parent and nonparent taxpayers indicate satisfaction with, and demonstrate support for, the special education program.	H2b
10.2.5.4	Community leaders and business persons indicate support for the special education program through donations or contributions, employment of graduates, and support of special activities.	H2b
LANGUAGE ARTS		
1.	Use language, both oral and written, while working with others to learn and solve problems.	
1.1	Collaborate in writing and solving problems.	F2a, F3c, G4b
1.2	Use resources to acquire information and conduct research of personal significance.	F4
1.3	Think aloud and share thought processes with others.	G4b
1.4	Discuss and recommend printed materials to others.	F4
1.5	Compare literature and arts from different cultures.	F4b
2.	Communicate clearly using oral language and listen effectively.	
2.1	Speak and listen to and learn for enjoyment.	F1a
2.2	Give and follow directions.	F1a
2.3	Contribute to class discussions.	A2a
2.4	Collaborate in groups.	G4b
2.5	Paraphrase what others have to say.	F1a
2.6	Retell stories.	F1a
2.7	Adapt speaking to different audiences.	F1a
3.	Read for understanding.	
3.1	Establish purposes for reading.	F3b
3.2	Enjoy reading works from their own and other cultures.	F3b, G3b
3.3	Make comparisons and predictions.	F2a
3.4	Draw conclusions.	F2a
3.5	Use headings, pictures, captions, and other textual cues.	F3b
3.6	Read for uninterrupted periods of time.	F3b
3.7	Share ideas about reading and experiences.	F1a, F3b
3.8	Select reading materials from classroom libraries and school media centers.	D1b, F3b
3.9	Comprehend a wide variety of materials including stories, chapter books, textbooks, and informational materials, student writing, audiovisual media, and reference materials.	F3b
4.	Select and use appropriate strategies for writing.	
4.1	Write for uninterrupted periods of time.	F3c
4.2	Write for different purposes to produce a personal narrative, messages, letters, logs of ideas and information, lists and charts, and responses to literature.	F3c
4.3	Use literature as a stimulus for writing.	F3c, F4b

Indiana

		NCEO CODE
4.4	Use the writing process (prewriting, drafting, peer sharing, revising, and editing) to produce final products.	F3c
4.5	Produce final products that communicate effectively with readers and follow accepted conventions (grammar, usage, mechanics) of written language.	F3c
4.6	Generate topics of personal interest.	F3c
4.7	Use writing to learn.	F3c
4.8	Use writing for personal enjoyment and satisfaction.	F3c, H
5.	Use prior knowledge and content area information to reason, apply concepts, and make critical judgments.	
5.1	Make inferences from what is read or heard.	F2a, F3b
5.2	Identify cause/effect relationships.	F2a
5.3	Distinguish between fact and opinion.	F2a
5.4	Distinguish between reality and fantasy.	F2a
5.5	Understand elements of story structure: theme, characters, setting, plot.	F4b
5.6	Choose topics for writing.	D1b
5.7	Understand structure of expository text.	F3b
5.8	Recognize the unique features of personal language.	F3b
MATHEMATICS		
1.	Develop problem-solving abilities.	
1.1	Formulate problems from everyday and mathematical situations.	F2a, F3a
1.2	Solve problems that require the use of strategies such as making a list, drawing a picture, looking for a pattern, etc.	F2a
1.3	Use manipulatives to solve problems.	F2a, F3a
1.4	Verify results with respect to the original problem.	F2a
1.5	Investigate new mathematical situations using previously learned knowledge.	F3a
2.	Communicate understanding of mathematics.	
2.1	Discuss mathematical concepts and relationships.	F1a, F3a
2.2	Draw pictures and use objects to illustrate mathematical concepts.	F3a
2.3	Write about mathematics topics presented at this level.	F3a
3.	Develop reasoning skills.	
3.1	Use addition or subtraction to continue a number pattern.	F3a
3.2	Identify the missing information needed to find a solution to a given story problem.	F3a
3.3	Compare and contrast geometric figures.	F3a
3.4	Verify an answer to a problem.	F3a
4.	Recognize and develop mathematical connections.	
4.1	Recognize and develop the relationship between addition and multiplication.	F3a
4.2	Recognize and develop the relationship between fractions and decimals.	F3a
4.3	Recognize and develop the mathematical situations occurring in children's literature.	F3a, F4b
4.4	Recognize and develop mathematical applications in social studies, such as graphs, tables, and map skills.	F3a, F4a
4.5	Recognize and develop the mathematical skills and concepts in science, such as measurement, graphs, and data analysis.	F3a, F4a
4.6	Recognize and develop the use of geometry in nature, art, and architecture.	F3a, F4b
4.7	Recognize and develop the use of probability and statistics to describe and predict events that occur in nature.	F3a, F3a
4.8	Recognize and develop the use of money and banking applications.	F3a
5.	Develop sense of whole numbers (by grade 2).	F3a

Indiana

		NCEO CODE
6.	Develop place-value concepts for whole numbers.	
6.1	Identify and write a three-digit number given a physical model or an illustration of a place-value model.	F3a
6.2	Given the number of hundreds, tens, and ones, identify and write a three-digit number.	F3a
6.3	Given a three-digit number, identify the number of hundreds, tens, and ones.	F3a
6.4	Identify any three-digit number in various combinations of hundreds, tens, and ones.	F3a
6.5	Identify the number 1000 as a unit or in various combinations of hundreds, tens, and ones.	F3a
7.	Develop computation and estimation skills for whole numbers.	
7.1	Given a region divided in congruent parts, name and write a fraction to represent a shaded portion.	F3a
7.2	Given a set of objects, name and write a fraction to represent a subset.	F3a
7.3	Given a set of fractional models, name and write those that represent equivalent fractions.	F3a
7.4	Given a fraction, use physical models or illustrations to represent equivalent fractions.	F3a
7.5	Given a pair of fractions, determine which is larger or smaller using physical models or illustrations.	F3a
7.6	Given physical models or illustrations, name and write a decimal to represent tenths and hundredths.	F3a
7.7	Given a decimal representing tenths, represent it as a fraction using place-value models.	F3a
8.	Develop computation and estimation skills for whole numbers.	
8.1	Use manipulatives to develop subtraction algorithms.	F3a
8.2	Subtract any two-digit numbers.	F3a
8.3	Use manipulatives to illustrate an addition algorithm for numbers less than 1000.	F3a
8.4	Add any two or more numbers less than 1,000.	F3a
8.5	Determine the reasonableness of answers for problems involving addition and subtraction.	F3a
8.6	Use estimation and mental computation to solve problems where exact numbers are not required.	F3a
8.7	Use manipulatives to illustrate a subtraction algorithm of any two numbers with subtrahend less than 1000.	F3a
8.8	Subtract any two numbers with subtrahend less than 1,000.	F3a
8.9	Use manipulatives and pictures to represent multiplication as repeated addition or arrays.	F3a
9.	Develop computation skills with fractions and decimals (none).	F3a
10.	Recognize, describe, draw, classify, and compare geometric objects.	
10.1	Use the terms, points, lines, and line segments in describing two-dimensional shapes.	F3a
10.2	Draw line segments and lines.	F3a
10.3	Draw lines of symmetry.	F3a
10.4	Determine if two-plane figures are congruent by matching.	F3a
10.5	Identify, describe, and draw a kite.	F3a
10.6	Identify and describe pyramids.	F3a
11.	Develop spatial sense.	
11.1	Separate a shape into smaller shapes.	F3a
11.2	Recognize and make shapes that can be created from a set of three simple shapes.	F3a
11.3	Identify congruent figures.	F3a
11.4	Draw figures congruent to a given figure.	F3a
11.5	Construct three-dimensional objects.	F3a
12.	Estimate and measure using standard and nonstandard units.	
12.1	Tell time to the nearest minute.	F3a
12.2	Measure line segments to the nearest half-inch and quarter-inch.	F3a
12.3	Investigate perimeters.	F3a
12.4	Add units of length that may or may not require regrouping of inches to feet or centimeters to meters.	F3a

Indiana

		NCEO CODE
4.4	Use the writing process (prewriting, drafting, peer sharing, revising, and editing) to produce final products.	F3c
4.5	Produce final products that communicate effectively with readers and follow accepted conventions (grammar, usage, mechanics) of written language.	F3c
4.6	Generate topics of personal interest.	F3c
4.7	Use writing to learn.	F3c
4.8	Use writing for personal enjoyment and satisfaction.	F3c, H
5.	Use prior knowledge and content area information to reason, apply concepts, and make critical judgments.	
5.1	Make inferences from what is read or heard.	F2a, F3b
5.2	Identify cause/effect relationships.	F2a
5.3	Distinguish between fact and opinion.	F2a
5.4	Distinguish between reality and fantasy.	F2a
5.5	Understand elements of story structure: theme, characters, setting, plot.	F4b
5.6	Choose topics for writing.	D1b
5.7	Understand structure of expository text.	F3b
5.8	Recognize the unique features of personal language.	F3b
MATHEMATICS		
1.	Develop problem-solving abilities.	
1.1	Formulate problems from everyday and mathematical situations.	F2a, F3a
1.2	Solve problems that require the use of strategies such as making a list, drawing a picture, looking for a pattern, etc.	F2a
1.3	Use manipulatives to solve problems.	F2a, F3a
1.4	Verify results with respect to the original problem.	F2a
1.5	Investigate new mathematical situations using previously learned knowledge.	F3a
2.	Communicate understanding of mathematics.	
2.1	Discuss mathematical concepts and relationships.	F1a, F3a
2.2	Draw pictures and use objects to illustrate mathematical concepts.	F3a
2.3	Write about mathematics topics presented at this level.	F3a
3.	Develop reasoning skills.	
3.1	Use addition or subtraction to continue a number pattern.	F3a
3.2	Identify the missing information needed to find a solution to a given story problem.	F3a
3.3	Compare and contrast geometric figures.	F3a
3.4	Verify an answer to a problem.	F3a
4.	Recognize and develop mathematical connections.	
4.1	Recognize and develop the relationship between addition and multiplication.	F3a
4.2	Recognize and develop the relationship between fractions and decimals.	F3a
4.3	Recognize and develop the mathematical situations occurring in children's literature.	F3a, F4b
4.4	Recognize and develop mathematical applications in social studies, such as graphs, tables, and map skills.	F3a, F4a
4.5	Recognize and develop the mathematical skills and concepts in science, such as measurement, graphs, and data analysis.	F3a, F4a
4.6	Recognize and develop the use of geometry in nature, art, and architecture.	F3a, F4b
4.7	Recognize and develop the use of probability and statistics to describe and predict events that occur in nature.	F3a, F3a
4.8	Recognize and develop the use of money and banking applications.	F3a
5.	Develop sense of whole numbers (by grade 2).	F3a

Kansas

Documents Utilized

Kansas Curricular Standards for Communication (September, 1993)
Kansas Mathematics Curriculum Standards (revised July, 1993)
Kansas Curricular Standards for Science (March, 1993; reprinted, February, 1994)

Background

In 1991, the legislature mandated state assessments based on what student should know and be able to do. The first draft of the math standards was completed in 1990 and has been revised several times since then; standards in other subjects were completed initially in 1993 and are now being revised. Each subject has a different age grouping. For example, the math standards describe student learning for grades K-4, 5-8, and 9-12. Districts are not required to adopt the curriculum standards; however, the standards form the basis for the state's testing system.

Kansas

CURRICULAR STANDARDS FOR SCIENCE	NCEO CODE
Student Outcome 1 All students will demonstrate in academic and applied situations a high level of mastery of essential skills as evidenced by the following standards:	
A. Read and comprehend a variety of resources.	F3b
B. Communicate clearly, both orally and in writing, for a variety of purposes and audiences.	F1a, F3c
C. Use mathematics and mathematical principles.	F3a
D. Access and use information.	F4
Student Outcome 2 All Students will demonstrate effective communication skills as evidenced by the following standards:	
A. Analyze, summarize, and comprehend what is read in all subject areas.	F1a, F3c
B. Write and orally communicate for:	F1a, F3c
1. clear articulation,	F1a, F3c
2. analysis,	F1a, F3c
3. conceptualization,	F1a, F3c
4. synthesis, and	F1a, F3c
5. summarization of information.	F1a, F3c
Student Outcome 3 All students will demonstrate complex thinking skills academic and applied situations as evidenced by the following standards:	
A. Apply problem-solving skills.	F2a
B. Find information; process, analyze, and synthesize it; and apply it to new situations.	F2a
C. Use creative, imaginative, and divergent thinking to formulate and solve problems, and to communicate the results.	F2a
Student Outcome 4 All students will demonstrate the necessary characteristics to work effectively both independently and in groups as evidenced by the following standards:	
A. Work collaboratively in teams.	G4b
B. Work together without prejudice, bias, or discrimination, using techniques to separate people from problems, focusing on interests not positions, inventing options for mutual gain, and using objective criteria.	G3b, G4b

Kansas

	NCEO CODE
Student Outcome 5	
All students will demonstrate physical and emotional well-being as evidenced by the following standard:	
A. Have the knowledge, skills, and behaviors essential to live a healthy and productive life.	C1
THE NATURE OF SCIENCE	
THE LEARNER (GRADE 5)	
1. Applies Problem-Solving Skills.	F2a
Uses appropriate technology as tool in problem solving.	F2a, F5a
Uses appropriate science process skills in problem solving.	F2a, F4a
Observing	
Describes complex objects by observing their essential characteristics.	F4a
Uses optical devices to improve visual observations.	F4a, F5a
Verifies observations of the characteristics of living and nonliving objects by examining several living and nonliving things.	F4a
Identifies objects within a system and their interactions.	F4a
Inferring	
Identifies inferences during a hands-on experience.	F4a
Distinguishes inferences from observations.	F4a
Classifying	
Classifies items by putting them together on the basis of more than a single characteristic at a time.	F4a
Predicting	
Observes phenomena and makes predictions.	F2a, F4a
Makes predictions based on recorded data.	F2a, F4a
Measuring	
Practices measuring length, weight, and volume by comparison to a standard unit of measurement.	F4a
Uses a Celsius thermometer to measure temperature.	F4a
Uses a simple balance to measure mass in kilograms.	F4a
Chooses the most appropriate unit and measuring device for a given observation.	F4a, F5a
Data Collecting/Record Keeping	
Keeps records of observations in investigations.	F4a
Uses data to describe what happened in the investigation.	F4a
Questioning	
Formulates questions which can be answered by simple experiments.	F2a, F4a
Relating	
Relates new concepts to everyday environment.	F4a
Sees relationships between interacting objects.	F4a
2. Solves Problems Cooperatively.	
Participates in science investigation team to resolve teacher-facilitated problem.	F4a, G4b
Expresses and receives support and acceptance with group members.	G4b
Performs selected group roles and responsibilities.	D1a
Designs and performs in groups or individually and experiments which can be tested.	F4a, G4b
Conducts simple group investigations using community resources.	F4a
5. Demonstrates and Values Inquiring Attitude (as evidenced by curiosity, openness to new ideas, respect for reason, and a reliance on data, facts, and observations, etc.).	
Asks divergent questions and begins to investigate.	F4a
Approaches scientific experiences with self-confidence.	F4a, G2b
Is open-minded and willing to modify opinion based on evidence.	F4a, G

Kansas

	NCEO CODE
6. Exhibits Safe and Proper Techniques for Using Instruments and Materials of Science.	
Exhibits safe and appropriate techniques for using science equipment.	C2a, F4a
THE MEANING OF SCIENCE COMMUNICATED (Receiving, interpreting, and giving information that has meaning.)	
THE LEARNER (GRADE 5)	
1. Receives and interprets meaning from information or observed phenomena.	F2a, F4a
Seeks information from objects and events for the purpose of asking investigative questions.	F4a
Recognizes not all data or observations are definite or complete.	F4a
2. Communicates meaning to others using oral language, written language, mathematics, symbols, tables, graphs, visual aids, and technology.	F1a, F3c, F4a, F5a
Communicates meaning by using oral, written, mathematical, and symbolic language (e.g., tables, graphs, visual aids, and technology).	F1a, F3c, F5a
THE INTEGRATION OF SCIENCE (All the fields of science are interrelated with each other and with other disciplines. Themes are the conceptual organizations of accumulated knowledge within science disciplines.)	
THE LEARNER (GRADE 5)	
1. Explains and interprets theories and concepts in the life, earth, and physical sciences using unifying themes, including but not limited to, Energy/Matter, Patterns of Change, Systems and Interactions, Patterns of Stability and Equilibrium, and Models.	F4a
Systems and Interactions	
Identifies the parts and interactions of natural systems. (A group of objects interacting for a purpose. An interaction has taken place when two or more objects do something to each other and there has either been a change of properties, number of objects, or change in position.)	F4a
Energy and Matter	
Recognizes that interactions of matter and energy follow patterns of nature and are reproducible.	F4a
Patterns of Change (trends, cycles, chaos)	
Describes cyclic changes in the natural world.	F4a
Observes and compares common characteristics of identified cycles.	F4a
Stability (equilibrium, conservation, symmetry)	
Demonstrates understanding of conservation of matter (totals stay the same even if the things that make them up change).	F4a
Demonstrates understanding of equilibrium (totals stay the same because gains and losses are equal).	F4a
Model (physical, conceptual, and mathematical)	
Utilizes physical and conceptual models to represent phenomena.	F4a
THE RELATIONSHIP OF SOCIAL, TECHNOLOGICAL, AND SCIENTIFIC ISSUES (Science and technology have complex relationships with social and physical environments.)	
THE LEARNER (GRADE 5)	
1. Applies reasoned decision-making skills to issues of personal and public concern.	E1a, F2a, F4a
Recognizes that scientific knowledge, thinking processes, and skills are used in a great variety of careers.	no match
Recognizes that specific careers are not unique to gender, culture, or ethnicity.	no match
Makes decisions related to personal health, nutrition, and lifestyle based upon knowledge of scientific concepts.	C1, C1a, C2, F4a

Kansas

	NCEO CODE
Student Outcome 5	
All students will demonstrate physical and emotional well-being as evidenced by the following standard:	
A. Have the knowledge, skills, and behaviors essential to live a healthy and productive life.	C1
THE NATURE OF SCIENCE	
THE LEARNER (GRADE 5)	
1. Applies Problem-Solving Skills.	F2a
Uses appropriate technology as tool in problem solving.	F2a, F5a
Uses appropriate science process skills in problem solving.	F2a, F4a
Observing	
Describes complex objects by observing their essential characteristics.	F4a
Uses optical devices to improve visual observations.	F4a, F5a
Verifies observations of the characteristics of living and nonliving objects by examining several living and nonliving things.	F4a
Identifies objects within a system and their interactions.	F4a
Inferring	
Identifies inferences during a hands-on experience.	F4a
Distinguishes inferences from observations.	F4a
Classifying	
Classifies items by putting them together on the basis of more than a single characteristic at a time.	F4a
Predicting	
Observes phenomena and makes predictions.	F2a, F4a
Makes predictions based on recorded data.	F2a, F4a
Measuring	
Practices measuring length, weight, and volume by comparison to a standard unit of measurement.	F4a
Uses a Celsius thermometer to measure temperature.	F4a
Uses a simple balance to measure mass in kilograms.	F4a
Chooses the most appropriate unit and measuring device for a given observation.	F4a, F5a
Data Collecting/Record Keeping	
Keeps records of observations in investigations.	F4a
Uses data to describe what happened in the investigation.	F4a
Questioning	
Formulates questions which can be answered by simple experiments.	F2a, F4a
Relating	
Relates new concepts to everyday environment.	F4a
Sees relationships between interacting objects.	F4a
2. Solves Problems Cooperatively.	
Participates in science investigation team to resolve teacher-facilitated problem.	F4a, G4b
Expresses and receives support and acceptance with group members.	G4b
Performs selected group roles and responsibilities.	D1a
Designs and performs in groups or individually and experiments which can be tested.	F4a, G4b
Conducts simple group investigations using community resources.	F4a
5. Demonstrates and Values Inquiring Attitude (as evidenced by curiosity, openness to new ideas, respect for reason, and a reliance on data, facts, and observations, etc.).	
Asks divergent questions and begins to investigate.	F4a
Approaches scientific experiences with self-confidence.	F4a, G2b
Is open-minded and willing to modify opinion based on evidence.	F4a, G

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F.	Use reading, writing and oral language as tools for learning throughout the curriculum.	F1a, F3b, F3c
3.	Learners will demonstrate an understanding of the development nature of language. Some basic theoretical knowledge should help students understand why communication succeeds and fails and how to ensure frequent success.	F4a
	ESSENTIAL COMMUNICATION: ELEMENTARY SCHOOL The Learners Will:	
A.	Demonstrate an understanding of the importance to children's language development of reading and talking to young children in order to fulfill the learners' responsibilities as role models.	no match
B.	Demonstrate how numbers and words make up systems that are used in reading and writing.	F3b, F3c
C.	Demonstrate an understanding of how languages change.	F4a
D.	Demonstrate and understanding of the communication process by interpreting, analyzing, and improving faulty communication.	F1a, F4a
4.	Learners will recognize that in a multicultural society there will be numerous languages and dialects, and they will accord each language and dialect equal status as a social expression of human experience. No language or dialect is linguistically superior to another, just as no culture is inherently superior to another culture. Unfortunately, many people are restricted from favored social status or improved economic advantages because their language or dialect is considered inferior. American students need to honor diversity in language as part of honoring diverse cultures; especially compelling is the need to honor the dialects and cultures that are within our own borders. At the same time, students must recognize the importance of appropriate levels of usage. In practice, such recognition involves the selection of the speaker's or writer's social dialect most appropriate to audience and purpose. In this sense, "standard" English represents a dialect that should be common to all rather than a label of favored social status. Nonstandard dialects, including attempts by foreigners to speak English, are not corruptions of standard English but rather communication which uses rule systems not shared by standard English.	
	ESSENTIAL COMMUNICATION BENCHMARKS: SECONDARY, MIDDLE AND ELEMENTARY SCHOOL	
A.	Demonstrate control of standard American English.	F1a
B.	Demonstrate in their speaking and writing that they value their own language and dialect.	no match
C.	Demonstrate and understanding that no language or dialect is superior to another.	G3b
D.	Demonstrate an understanding of why some languages and dialects are misjudged as superior to others.	no match
E.	Demonstrate an understanding that to meet their purpose, writers and speakers will choose from among dialects they speak, and they will choose a degree of formality or informality.	F4a
F.	Demonstrate a familiarity with the literature of diverse cultures and with the work of both men and women speakers and writers.	F4b, G3b
5.	Learners will enhance their creative and critical thinking by developing and describing their own standards for aesthetic and critical evaluation. In addition to developing technical proficiency in the receptive and productive aspects of oral and written language, students need to develop their own unique standards for appreciating and critiquing human expression. The development of personal standards extends the resources of the entire language community.	
	ESSENTIAL COMMUNICATION BENCHMARKS: ELEMENTARY SCHOOL The Learners Will:	
A.	Create their own criteria for assessing written and oral expression responsive to author	F2a

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purpose and audience need.	
B. Demonstrate an understanding that personal and varied interpretation is part of the richness of any art.	F4b
C. interpret and evaluate literary and dramatic activities and works with open-mindedness, curiosity, and willingness to ask questions.	F4b, G3b
6. Learners will use a variety of print, non-print, and technological resources to find information for critical and creative thinking. Creative and critical thinking require access to information.	
ESSENTIAL COMMUNICATION BENCHMARKS: SECONDARY, MIDDLE AND ELEMENTARY SCHOOL The Learners Will:	
A. Create written and spoken work with information from a variety of technologies in schools, libraries and communities.	F1a, F3c, F5a
B. Select the technologies appropriate for the ways they learn best.	F5a
C. Demonstrate that they can create work of their own with the help of information from others.	F4
7. Learners will demonstrate the interpersonal and group communication skills necessary to work with others. Though we frequently think of ourselves as a nation of individuals, cooperation and teamwork have always been important to us and will continue to be important.	
ESSENTIAL COMMUNICATION BENCHMARKS: ELEMENTARY SCHOOL The Learners Will:	
A. Function effectively in a variety of roles within formal and informal groups.	D1a, G4b
B. Develop and describe their understanding of the right of free speech.	E
C. Demonstrate a systematic approach to solving problems in a variety of situations.	F2a
D. Resolve conflict through negotiation and compromise.	no match
E. Demonstrate a respect for differences in attitude, behavior, values and beliefs.	G3a
F. Identify, reflect upon, and adjust appropriately that means they use to communicate strong feelings.	G1b
G. Accept criticism, disagreement, disappointment and compliments appropriately.	G1a
H. Allow others to speak and listen without interrupting or creating noise.	G3a
I. Demonstrate sensitivity to those with physiological communication difficulties, such as difficulties with hearing, articulation, vision, and language.	G3b
CURRICULAR STANDARDS FOR SOCIAL STUDIES	
Program Outcome 1: Students will use appropriate concepts, processes, and tools from a variety of disciplines in thinking critically and creatively about knowledge.	F2a
Student Outcome 1A: Students will demonstrate in-depth use of a range of disciplines to acquire, organize, reorganize, generate, and apply knowledge.	F2a
By the 5th grade level students individually and collaboratively will: Benchmarks	
Use tools, skills, terminology, and concepts from the social sciences, the humanities, the natural sciences, and mathematics	F3a, F4a, F4b
in finding information on a topic, issue, or situation;	F3a, F4a, F4b
in arranging information in usable formats;	F3a, F4a, F4b
in analyzing, evaluating, and making connections in information;	F3a, F4a, F4b
in synthesizing, imagining, and elaborating on information;	F3a, F4a, F4b
in achieving a goal or producing a decision or solution; and	F3a, F4a, F4b
in creating written, spoken, and symbolic products to present the results of an investigation.	F1a, F3a, F3c, F4a, F4b

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Indicators	
Use a variety of ***techniques and resources*** in acquiring information (e.g., reading, listening, interviews, observations, maps, atlases, graphs, charts, photographs, documents, artifacts, computer databases).	F3, F3b, F4
Use a variety of ***representations and patterns*** in organizing information (e.g., models, symbols, graphics, descriptions, sequences, problems/solutions, concepts/characteristics/examples).	F3, F4
Use a variety of ***reasoning strategies*** in translating issues and situations, processing information, and communicating conclusions (e.g., analyzing, connecting, evaluating, synthesizing, imagining, elaborating, problem-solving, designing, decision-making).	F2a
Use a variety of ***tools and methods*** in communicating results of investigations (e.g., oral and written reports, videotapes, small group and classroom discussions, debates, maps, graphs, tables, flowcharts, collages, stories, plays, outlines, songs, paintings, pictures).	F5a
Program Outcome 2: Students will make informed and reasoned decisions about emerging events and persistent issues and dilemmas confronting contemporary societies.	F4a
Student Outcome 2A: Students will demonstrate an in-depth understanding of recurring issues and dilemmas which influence ideas, values, beliefs, attitudes, and choices within and across societies.	F4a
By the 5th grade level, students individually and collaboratively will:	
Benchmarks	
Give examples of and reasons for the ways in which societies organize for producing and distributing goods and services.	F4a
Give examples of and reasons for the ways in which societies organize for governing and maintaining order.	F4a
Give examples of and reasons for the ways in which societies organize human groups.	F4a
Give examples of and reasons for the ways in which culture and cultural diversity influence societies.	F4a
Give examples of and reasons for the ways in which space and place influence societies.	F4a
Give examples of and reasons for the ways in which scarcity influences societies.	F4a
Give examples of and reasons for the ways in which interdependence influences societies.	F4a
Give examples of and reasons for the ways in which science and technology influence societies.	F4a
Give examples of and reasons for economic, legal, political, and social conditions and motivations which contribute to cooperation, competition, and conflict among societies.	F4a
Give examples of and reasons for the ways in which different societies address recurring problems.	F4a
Indicators	
Use the following perspectives in interpreting issues and problems:	
Economic (i.e., a perspective which focuses on questions concerning production, distribution, and consumption of goods and services within and among economic systems. Concepts such as scarcity, opportunity cost, trade-off, and productivity serve as organizers around which questioning occurs in this perspective.)	F4a
Environmental (i.e., a perspective which focuses interdependent relationships among the life forms, ecosystems, and human societies of the Earth. Concepts such as system, interaction, adaptation/modification, and change serve as organizers around which questioning occurs in this perspective.)	F4a
Historical (i.e., a perspective which focuses on questions concerning ways people view themselves in and over time. Concepts such as time, causation, change/continuity, and conflict serve as organizers around which questioning occurs in this perspective.)	F4a
Spatial (i.e., a perspective which focuses on questions concerning location and place of Earth's physical and human features. Concepts such as pattern, distance, connection, and	F4a

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purpose and audience need.	
B. Demonstrate an understanding that personal and varied interpretation is part of the richness of any art.	F4b
C. interpret and evaluate literary and dramatic activities and works with open-mindedness, curiosity, and willingness to ask questions.	F4b, G3b
6. Learners will use a variety of print, non-print, and technological resources to find information for critical and creative thinking.	
Creative and critical thinking require access to information.	
ESSENTIAL COMMUNICATION BENCHMARKS: SECONDARY, MIDDLE AND ELEMENTARY SCHOOL	
The Learners Will:	
A. Create written and spoken work with information from a variety of technologies in schools, libraries and communities.	F1a, F3c, F5a
B. Select the technologies appropriate for the ways they learn best.	F5a
C. Demonstrate that they can create work of their own with the help of information from others.	F4
7. Learners will demonstrate the interpersonal and group communication skills necessary to work with others.	
Though we frequently think of ourselves as a nation of individuals, cooperation and teamwork have always been important to us and will continue to be important.	
ESSENTIAL COMMUNICATION BENCHMARKS: ELEMENTARY SCHOOL	
The Learners Will:	
A. Function effectively in a variety of roles within formal and informal groups.	D1a, G4b
B. Develop and describe their understanding of the right of free speech.	E
C. Demonstrate a systematic approach to solving problems in a variety of situations.	F2a
D. Resolve conflict through negotiation and compromise.	no match
E. Demonstrate a respect for differences in attitude, behavior, values and beliefs.	G3a
F. Identify, reflect upon, and adjust appropriately that means they use to communicate strong feelings.	G1b
G. Accept criticism, disagreement, disappointment and compliments appropriately.	G1a
H. Allow others to speak and listen without interrupting or creating noise.	G3a
I. Demonstrate sensitivity to those with physiological communication difficulties, such as difficulties with hearing, articulation, vision, and language.	G3b
CURRICULAR STANDARDS FOR SOCIAL STUDIES	
Program Outcome 1: Students will use appropriate concepts, processes, and tools from a variety of disciplines in thinking critically and creatively about knowledge.	F2a
Student Outcome 1A: Students will demonstrate in-depth use of a range of disciplines to acquire, organize, reorganize, generate, and apply knowledge.	F2a
By the 5th grade level students individually and collaboratively will:	
Benchmarks	
Use tools, skills, terminology, and concepts from the social sciences, the humanities, the natural sciences, and mathematics	F3a, F4a, F4b
in finding information on a topic, issue, or situation;	F3a, F4a, F4b
in arranging information in usable formats;	F3a, F4a, F4b
in analyzing, evaluating, and making connections in information;	F3a, F4a, F4b
in synthesizing, imagining, and elaborating on information;	F3a, F4a, F4b
in achieving a goal or producing a decision or solution; and	F3a, F4a, F4b
in creating written, spoken, and symbolic products to present the results of an investigation.	F1a, F3a, F3c, F4a, F4b

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life forms, ecosystems, and human societies of the Earth. Concepts such as system, interaction, adaptation/modification, and change serve as organizers around which questioning occurs in this perspective.)	
Historical (i.e., perspective which focuses on questions concerning ways people view themselves in and over time. Concepts such as time, causation, change/continuity, and conflict serve as organizers around which questioning occurs in this perspective.)	F4a
Spatial (i.e., perspective which focuses on questions concerning location and place of Earth's physical and human features. Concepts such as pattern, distance, connection, and interaction serve as organizers around which questioning occurs in this perspective.)	F4a
Civic (i.e., a perspective which focuses on questions concerning ways people exercise rights, privileges, and obligations of citizenship. Concepts such as system, authority, power, and justice serve as organizers around which questioning occurs in this perspective.)	F4a
Cultural (i.e., a perspective which focuses on questions concerning ways groups of people live. Concepts such as group, institution, community, and culture, serve as organizers around which questioning occurs in this perspective.)	F4a
Age (i.e., a perspective which focuses on questions concerning ways societies link expectations of people to age. Concepts such as culture, norm, status, and law serve as organizers around which questioning occurs in this perspective.)	F4a
Gender (i.e., a perspective which focuses on questions concerning ways societies influence and shape gender roles. Concepts such as culture, role, status, and socialization serve as organizers around which questioning occurs in this perspective.)	F4a
Student Outcome 3A: Students will develop civic competence and responsibility. Students will demonstrate and in-depth use of civic understandings, skills, and dispositions.	D, F4a
By the 5th grade level, students individually and collaboratively will:	
Give examples of reasons for the ways in which the behaviors and skills of individuals influence public problem-solving and decision-making.	F4a
Give examples of and reasons for the ways in which the relationships among individuals, groups, and institutions influence public problem-solving and decisions.	F4a
Give examples of and reasons for the ways in which the ideals, principles, and practice of citizenship in American constitutional democracy influence public problem-solving and decision-making.	F4a
Design, evaluate, and put into action strategies for participation in civic life that involve addressing a real life need,	
Bringing school and community issues and problems into the classroom for discussion and reflection,	F4a
Building collaborative relationships within and across the classroom, school, and community, and	F4a
Developing a tangible product for public view.	F4a
Indicators	
Describe the following dispositions or traits of character and explain why they are important to personal and civic problem-solving and decision-making:	
Civility (i.e., treating others with respect, listening to other points of view, and avoiding hostile, abusive, emotional and illogical arguments);	F4a, G3b
Respect for law (i.e., abiding by laws even though one may not be in complete agreement with every law);	E1a, F4a
Open mindedness (i.e., considering other points of view).	G3b
Critical mindedness (i.e., questioning the validity of various positions, including one's own);	F2a
Negotiation and compromise (i.e., coming to agreement with those with whom one may differ); and	G4
Persistence (i.e., attempting again and again to accomplish a worthwhile goal).	D1b

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Explain the impact on problem-solving and decision-making, both historical and present day, of the racial, religious, ethnic, geographic, and linguistic diversity of American society (e.g., conflicts about values, principles, and interests have made resolving personal and civic issues such as slavery, desegregation, affirmative action, and abortion difficult or impossible.	
Explain, using historical and present-day examples, the roles of economic, legal, political, and social institutions, interest groups, and religious, charitable, service, and civic groups in problem-solving and decision-making at the national, state, and local levels (e.g., regulating the safety of people's working conditions, ruling whether or not people are treated fairly in the job market, performing functions usually associated with government such as social welfare and education).	
Explain historical and present-day conflicts among the fundamental values and principles of American constitutional democracy (e.g., conflicts between liberty and equality, free speech and privacy, individual rights and the common good).	
Describe the following dispositions or traits of character and explain why they are important to personal and civic problem-solving and decision-making:	
Individual responsibility (i.e., fulfilling the moral and legal obligations of membership in society).	E1a, F4a
Self-discipline/self-governance (i.e., adhering voluntarily to self-imposed standards of behavior rather than requiring the imposition of external controls).	F4
Respect for the rights of individuals (e.g., the right to hold and to advocate diverse ideas, the right to join in associations to advance particular points of view).	F4a, G3b
Compassion (i.e., concerning one's self about and attending to the well-being of others).	E2b, F4a
Patriotism (i.e., maintaining loyalty to the values and principles underlying American constitutional democracy).	E, F4a
Explain, using historical and present-day examples, the effects of significant world political, economic, technological, cultural, demographic, and environmental developments on problem-solving and decision-making in American society (e.g., dissolution of the U.S.S.R., growth of multinational corporations, use of personal computers, resurgence of ethnic consciousness, use of assembly line manufacturing, growth in population, and increase in global warming).	
Describe the following individual rights and explain why they influence problem-solving and decision-making:	
Personal rights (e.g., right to freedom of conscience, right to privacy, and personal autonomy);	F4a
Political rights (e.g., right to freedom of speech, right to petition); and	F4a
Economic rights (e.g., right to acquire, use, transfer, and dispose of property).	F4a
Describe the following individual responsibilities and explain why they influence problem-solving and decision-making:	
Personal responsibilities (e.g., taking care of one's self, supporting one's family and community); and	D3, F4a
Public responsibilities (e.g., voting, serving as a juror).	E1a, F4a
Describe the following forms of individual participation and explain why they influence problem-solving and decision-making:	
Political participation (e.g., petitioning political and law enforcement officials for more adequate protection against crime); and	F4a
Social participation (e.g., forming a neighborhood watch for crime).	F4a
MATHEMATICS	
Program Outcome 1. The students use mathematics to solve problems, understand that problems may have more than one answer, that there are multiple methods of solving	F2a, F3a

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problems, and that answers may be represented in a variety of forms.	
Formulates problems	F2a, F3a
Applies a variety of strategies to solve problems	F2a, F3a
Verifies and interprets results	F2a, F3a
Generalizes solutions	F2a, F3a
Program Outcome 2. The student uses mathematics to reason and analyze.	F2a, F3a
Recognizes valid and invalid arguments;	F2a, F3a
Uses inductive reasoning to recognize patterns and form conjectures;	F2a
Uses proportional and spatial reasoning to solve problems; and	F2a, F3a
Uses deductive reasoning to verify conclusions, judge the validity of arguments, and construct valid arguments.	F2a
Program Outcome 3. The student uses mathematical language to communicate ideas and relate written expressions, oral expression, and mathematical symbols.	F3a
Expresses mathematical ideas by speaking, writing, demonstrating, and depicting them graphically.	F3a
Understands, interprets, and evaluates mathematical ideas that are presented in written, oral, or visual forms.	F3a
Asks clarifying and extending questions relating to problem situations within and outside mathematics.	F3a
Program Outcome 4. The student applies mathematical knowledge and understanding of concepts.	F3a
Represents the same mathematical concept in different contexts, formats, and problem situations.	F3a
Uses models, diagrams, and symbols to represent concepts.	F3a
Identifies and generates examples and nonexamples.	F3a
Identifies properties and conditions of a given concept.	F3a
Compares and contrasts mathematical concepts.	F3a
Program Outcome 5. The student applies mathematical procedures.	F3a
Represents the same mathematical procedure in different contexts, formats, and problem situations.	F3a
Recognizes and discusses correct and incorrect procedures.	F3a
Reliably and efficiently executes procedures.	F3a
Uses one or more methods to verify results.	F3a
Extends or modifies existing procedures and explores new one.	F3a
Program Outcome 6. The student chooses and applies a variety of mathematical methods to investigate, conjecture, and/or verify results.	F2a, F3a
Determines whether an estimate or exact result is needed.	F3a
Selects and appropriately uses technology.	F3a, F5a
Selects and appropriately uses manipulatives.	F3a
Selects and appropriately uses models.	F3a
Selects and appropriately uses other mathematical methods.	F3a
Program Outcome 7. The student investigates connections of mathematical ideas and applications:	F3a
Among the mathematical topics,	F3a
Among mathematics and other disciplines, and	F3a
Among mathematics and real-life problem situations.	F3a
Program Outcome 8. The student works effectively in a variety of settings to learn mathematics and to solve problem situations within and outside mathematics:	F2a, F3a
Independently,	F3a
In small discussion groups,	F3a, F4b
In large groups, and	F3a, F4b
In cooperative groups.	F3a, F4b
Program Outcome 9. The student demonstrates a positive disposition toward mathematics in:	F3a, G2b
Confidence in using mathematics to solve problems, to communicate ideas, and to reason;	F2a, F3a, G2b

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Explain the impact on problem-solving and decision-making, both historical and present day, of the racial, religious, ethnic, geographic, and linguistic diversity of American society (e.g., conflicts about values, principles, and interests have made resolving personal and civic issues such as slavery, desegregation, affirmative action, and abortion difficult or impossible.	
Explain, using historical and present-day examples, the roles of economic, legal, political, and social institutions, interest groups, and religious, charitable, service, and civic groups in problem-solving and decision-making at the national, state, and local levels (e.g., regulating the safety of people's working conditions, ruling whether or not people are treated fairly in the job market, performing functions usually associated with government such as social welfare and education).	
Explain historical and present-day conflicts among the fundamental values and principles of American constitutional democracy (e.g., conflicts between liberty and equality, free speech and privacy, individual rights and the common good).	
Describe the following dispositions or traits of character and explain why they are important to personal and civic problem-solving and decision-making:	
Individual responsibility (i.e., fulfilling the moral and legal obligations of membership in society).	E1a, F4a
Self-discipline/self-governance (i.e., adhering voluntarily to self-imposed standards of behavior rather than requiring the imposition of external controls).	F4
Respect for the rights of individuals (e.g., the right to hold and to advocate diverse ideas, the right to join in associations to advance particular points of view).	F4a, G3b
Compassion (i.e., concerning one's self about and attending to the well-being of others).	E2b, F4a
Patriotism (i.e., maintaining loyalty to the values and principles underlying American constitutional democracy).	E, F4a
Explain, using historical and present-day examples, the effects of significant world political, economic, technological, cultural, demographic, and environmental developments on problem-solving and decision-making in American society (e.g., dissolution of the U.S.S.R., growth of multinational corporations, use of personal computers, resurgence of ethnic consciousness, use of assembly line manufacturing, growth in population, and increase in global warming).	
Describe the following individual rights and explain why they influence problem-solving and decision-making:	
Personal rights (e.g., right to freedom of conscience, right to privacy, and personal autonomy);	F4a
Political rights (e.g., right to freedom of speech, right to petition); and	F4a
Economic rights (e.g., right to acquire, use, transfer, and dispose of property).	F4a
Describe the following individual responsibilities and explain why they influence problem-solving and decision-making:	
Personal responsibilities (e.g., taking care of one's self, supporting one's family and community); and	D3, F4a
Public responsibilities (e.g., voting, serving as a juror).	E1a, F4a
Describe the following forms of individual participation and explain why they influence problem-solving and decision-making:	
Political participation (e.g., petitioning political and law enforcement officials for more adequate protection against crime); and	F4a
Social participation (e.g., forming a neighborhood watch for crime).	F4a
MATHEMATICS	
Program Outcome 1. The students use mathematics to solve problems, understand that problems may have more than one answer, that there are multiple methods of solving	F2a, F3a

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The student develops and uses models to represent and justify mathematical relationships and to assist in the solution of problem situations within and outside of mathematics.	F2a, F3a
Mathematics Curriculum Outcome 9: Geometry and Spatial Sense	
The student recognizes and investigates properties of simple geometric figures using appropriate technology, manipulatives, or constructions.	F3a, F5a
Mathematics Curriculum Outcome 10: Geometry and Spatial Sense	
The student uses estimation and measurement involving standard and nonstandard units to solve problem situations within and outside of mathematics.	F2a, F3a
Describes attributes of common two-dimensional figures.	F3a
Selects appropriate measurement tools, appropriate units of measurement, and appropriate degrees of accuracy.	F3a
Mathematics Curriculum Outcome 11: Geometry and Spatial Sense	
The student relates geometric and measurement concepts to numbers to solve problem situations within and outside of mathematics.	F2a, F3a
Mathematics Curriculum Outcome 12: Geometry and Spatial Sense	
The student recognizes and explores transformations of basic geometric figures to solve problem situations within and outside of mathematics.	F2a, F3a
Mathematics Curriculum Outcome 13: Probability and Statistics	
The student explores chance and counting techniques.	F3a
Conducts simple experiments and simulations.	F3a
Compares experimental results with expected results.	F3a
Mathematics Curriculum Outcome 14: Probability and Statistics	
The student collects, reads, and interprets data from problem situations within and outside of mathematics.	F3a
Models, calculates, and explains the mean, median, mode, and range.	F3a
Displays data in a variety of formats.	F3a
Mathematics Curriculum Outcome 15: Probability and Statistics	
The student uses data analysis, statistics, and probability to make decisions and predictions.	F3a

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Document Utilized

Kentucky's Learning Goals and Learner Outcomes (no date).

Background

In 1989, the governor created a 12-member Council on School Performance Standards to determine what Kentucky students should know and be able to do and how learning should be assessed. As part of the Kentucky Education Reform Act, passed in 1990, the state adopted six broad learning goals. The legislation authorized that the goals be framed in measurable terms. The resulting 75 learner outcomes are tied to the states broad goals for all students. For each outcome, benchmarks are provided to indicate student progress toward the outcome (elementary, middle, and high school).

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	LEARNING GOALS AND LEARNER OUTCOMES	NCEO CODE
1.	**Students are able to use basic communication and mathematics skills for purposes and situations they will encounter throughout their lives.**	
1.1	Students use research tools to locate sources of information and ideas relevant to a specific need or problem.	F4
1.2	Students construct meaning from a variety of print materials for a variety of purposes through reading.	F3b
1.3	Students construct meaning from messages communicated in a variety of ways for a variety of purposes through observing.	F1a
1.4	Students construct meaning from messages communicated in a variety of ways for a variety of purposes through listening.	F1a
1.5	Students communicate ideas by quantifying with whole, rational, real, or complex numbers.	F1a, F3a
1.6	Students manipulate information and communicate ideas with a variety of computational algorithms.	F1a, F3a
1.7	Students organize information and communicated ideas by visualizing space configurations and movements.	F3a
1.8	Students gather information and communicate ideas by measuring.	F1a, F3a
1.9	Students organize information and communicate ideas by algebraic and geometric reasoning such as relations, patterns, variables, unknown quantities, deductive, and inductive processes.	F1a, F3a
1.10	Students organize information through development and use of classification rules and classification systems.	F3a
1.11	Students organize information through development and use of audiences for a variety of purposes in a variety of modes through writing.	F3a
1.12	Students communicate ideas and information to a variety of audiences for a variety of purposes in a variety of modes through speaking.	F1a
1.13	Students construct meaning and/or communicate ideas and emotions through the visual arts.	F4b
1.14	Students construct meaning and/or communicate ides and emotions through music.	F4b
1.15	Students construct meaning from and/or communicate ideas and emotions through movement.	F4b
1.16	Students use computers and other electronic technology to gather, organize, manipulate and express information and ideas.	F5a
2.	**Students shall develop their abilities to apply core concepts and principles from mathematics, the sciences, the arts, the humanities, social studies, practical living studies, and vocational studies to what they will encounter throughout their lives.**	

Kentucky

		NCEO CODE
	SCIENCE	
2.1	Students use appropriate and relevant scientific skills to solve specific problems in real-life situations.	F23a, F4
2.2	Students identify, compare, and contrast patterns and use patterns to understand and interprets past and present events and predict future events.	F4a
2.3	Students identify and describe systems, subsystems, and components and their interactions by completing tasks and/or creating products.	F4a
2.4	Students use models and scale to explain or predict the organization, function, and behavior of objects, materials, and living things in their environment.	F4a
2.5	Students understand the tendency of nature to remain constant or move toward a steady state in closed systems.	F4a
2.6	Students complete tasks and/or develop products which identify, describe, and direct evolutionary change which has occurred or is occurring around them.	F4a
	MATHEMATICS	
2.7	Students demonstrate understanding of number concepts.	F3a
2.8	Students demonstrate understanding of concepts related to mathematical procedures.	F3a
2.9	Students demonstrate understanding of concepts related to space and dimensionality.	F3a
2.10	Students demonstrate understanding of measurement concepts.	F3a
2.11	Students demonstrate understanding of change concepts on patterns and functions.	F3a
2.12	Students demonstrate understanding of concepts related to mathematical structure.	F3a
2.13	Students demonstrate understanding of data concepts related to both certain and uncertain events.	F3a
	SOCIAL STUDIES	
2.14	Students recognize issues of justice, equality, responsibility, choice, and freedom and apply these democratic principles to real-life situations.	D, E1a, E1c, F4a
2.15	Students recognize varying forms of government and address issues of importance to citizens in democracy, including authority, power, civic action, and rights and responsibilities.	E1a, E1c
2.16	Students recognize varying social groupings and institutions and address issues of importance to members of them, including beliefs, customs, norms, roles, equity, order and change.	F4a
2.17	Students interact effectively and work cooperatively with the diverse ethnic and cultural groups of our nation and world.	G3b, G3c, G4b
2.18	Students make economic decisions regarding production and consumption of goods and services related to real-life situations.	F4a
2.19	Students recognize the geographic interaction between people and their surroundings in order to make decisions and take actions that reflect responsibility for the environment.	F4a
2.20	Students recognize continuity and change in historical events, conditions, trends, and issues in order to make decisions for a better future.	F4a
2.21	Students observe, analyze, and interpret human behaviors to acquire a better understanding of self, others, and human relationships.	F2a, F4a
	ARTS AND HUMANITIES	
2.22	Students create products and make presentations that convey concepts feelings.	F4b
2.23	Students analyze their own and others artistic products and performances.	F4b
2.24	Students appreciate creativity and values of the arts and the humanities.	F4b
2.25	Through their productions and performance or interpretation, students show an understanding of the influence of time, place, personality, and society on the arts and humanities.	F4b
2.26	Students recognize differences and commonalties in the human experience through their	F4b

Kentucky

Document Utilized

Kentucky's Learning Goals and Learner Outcomes (no date).

Background

In 1989, the governor created a 12-member Council on School Performance Standards to determine what Kentucky students should know and be able to do and how learning should be assessed. As part of the Kentucky Education Reform Act, passed in 1990, the state adopted six broad learning goals. The legislation authorized that the goals be framed in measurable terms. The resulting 75 learner outcomes are tied to the states broad goals for all students. For each outcome, benchmarks are provided to indicate student progress toward the outcome (elementary, middle, and high school).

Kentucky

	LEARNING GOALS AND LEARNER OUTCOMES	NCEO CODE
1.	**Students are able to use basic communication and mathematics skills for purposes and situations they will encounter throughout their lives.**	
1.1	Students use research tools to locate sources of information and ideas relevant to a specific need or problem.	F4
1.2	Students construct meaning from a variety of print materials for a variety of purposes through reading.	F3b
1.3	Students construct meaning from messages communicated in a variety of ways for a variety of purposes through observing.	F1a
1.4	Students construct meaning from messages communicated in a variety of ways for a variety of purposes through listening.	F1a
1.5	Students communicate ideas by quantifying with whole, rational, real, or complex numbers.	F1a, F3a
1.6	Students manipulate information and communicate ideas with a variety of computational algorithms.	F1a, F3a
1.7	Students organize information and communicated ideas by visualizing space configurations and movements.	F3a
1.8	Students gather information and communicate ideas by measuring.	F1a, F3a
1.9	Students organize information and communicate ideas by algebraic and geometric reasoning such as relations, patterns, variables, unknown quantities, deductive, and inductive processes.	F1a, F3a
1.10	Students organize information through development and use of classification rules and classification systems.	F3a
1.11	Students organize information through development and use of audiences for a variety of purposes in a variety of modes through writing.	F3a
1.12	Students communicate ideas and information to a variety of audiences for a variety of purposes in a variety of modes through speaking.	F1a
1.13	Students construct meaning and/or communicate ideas and emotions through the visual arts.	F4b
1.14	Students construct meaning and/or communicate ides and emotions through music.	F4b
1.15	Students construct meaning from and/or communicate ideas and emotions through movement.	F4b
1.16	Students use computers and other electronic technology to gather, organize, manipulate and express information and ideas.	F5a
2.	**Students shall develop their abilities to apply core concepts and principles from mathematics, the sciences, the arts, the humanities, social studies, practical living studies, and vocational studies to what they will encounter throughout their lives.**	

Kentucky

		NCEO CODE
	products.	
5.3	Students create and modify their understanding of a concept through organizing information.	F2a
5.4	Students use a decision-making process to make informed decisions among options.	F2a
5.5	Students use problem-solving processes to develop solutions to relatively complex problems.	F2a
6.	**Students shall develop their abilities to connect and integrate experiences and new knowledge form all subject matter fields with what they have previously learned and build on past learning experiences to acquire new information through various media sources.**	
6.1	Students address situations (e.g. topics, problems, decisions, products) from multiple perspectives and produce presentations or products that demonstrate a broad understanding. Examples of perspective include: economic, social, cultural, political, historic, physical, technical, aesthetic, environmental, and personal.	F4a
6.2	Students use what they already know to acquire new knowledge, develop new skills or interpret new experiences.	F4
6.3	Students expand their understanding of existing knowledge (e.g. topic, problem, situation, product), by making connections with new and unfamiliar knowledge skills and experiences.	F

Maryland

Document Utilized

Learning Outcomes in Mathematics, Reading, Writing/Language Usage, Social Studies, and Science for Maryland School Performance Assessment Program (May, 1990).

Background

In December 1989, the Maryland State Board of Education established the Maryland School Performance Program, a systematic outcome-based approach for promoting student achievement and school performance. One component of this program features the development of new criterion-referenced assessment batteries in key subject areas for students in grades 3, 5, 8, and 11. The learning outcomes are broad in scope and will guide test contractors in their work with Maryland teachers and curriculum supervisors in the development of the assessments. The learning outcomes are mandatory. They are tied to the state assessments, which are part of a statewide accountability system for schools and school districts.

Maryland

MATHEMATICS--GRADES 3, 5, AND 8	NCEO CODE
Students will demonstrate their ability to solve problems in mathematics including problems with open-ended answers, problems which are solved in cooperative atmosphere, and problems which are solved with the use of technology.	F2a, F3a, F5a, G4b
Students will demonstrate their ability to communicate mathematically. They will read, write, and discuss mathematics with language and the signs, symbols, and terms of the discipline.	F3a
Students will demonstrate their ability to reason mathematically. They will make conjectures, gather evidence, and build arguments.	F2a, F3a
Students will demonstrate their ability to connect mathematics topics within the discipline and with other disciplines.	F3a, F4
Students will demonstrate their ability to apply estimation strategies in computation, with use of technology, in measurement, and in problem solving. They will determine reasonableness of solutions.	F2a, F3a, F5a
Students will demonstrate their ability to solve problems using arithmetic operations with technology where appropriate.	F2a, F3a, F5a
Students will demonstrate their ability to describe and apply number relationships using concrete and abstract materials. They will choose appropriate operations and describe effects of operations on numbers.	F3a
Students will demonstrate their ability to apply geometric relationships using one, two and three dimensional objects. They will demonstrate congruency, similarity, symmetry, reflection and apply these concepts to the solution of the geometric problems.	F3a
Students will demonstrate and apply concepts of measurement using non-standard and standard units and metric and customary units. They will estimate and verify measurements. They will apply measurement to interdisciplinary and real world problems solving situations.	F2a, F3a
Students will demonstrate the basic concepts of probability such as predicting and finding probabilities.	F3a
Students will demonstrate their ability to recognize numeric and geometric relationships and will generalize a relation from data.	F3a
Students will demonstrate their ability to perform algebraic operations and will be able to model algebraic concepts using concrete materials.	F3a
Students will demonstrate a positive attitude toward mathematics and will value and appreciate the role of mathematics in school, the culture, and society.	F3a

Maryland

	NCEO CODE
GRADE 3	
ESTIMATION	
Determine reasonableness of answer with parameters as listed in computation (given 32 + 43, is the answer more or less than 70?)	F3a
Explore estimation strategies	F3a
Rounding to 10s ; using "between" "nearer to" (pg. 37) front-end estimation etc.	F3a
Apply estimation in working with quantities, measurement, computation, problem solving	F3a
Use manipulatives and mental math; measuring unit has to be shown/given	F3a
Time to hour and one-half hour	F3a
Length: inch, foot, yard, centimeter	F3a
Perimeter using a given unit, not numerical value	F3a
WHOLE NUMBERS COMPUTATION (use application format; can be two steps)	
Add and subtract with regrouping (more than 2 addends, limit to 3 digits)	
Multiply and divide with two or three digits by one digit-use regrouping and remainders	
FRACTIONS AND DECIMALS	
Demonstrate meaning of parts of a fraction	F3a
Compare and order fractions using models	F3a
Compare fractions/whole numbers using models	F3a
Relate fractions to parts of a dollar	F3a
Relate fractions to decimals(?) (to tenths, and hundredths with money)	F3a
Construct problems with common fractions and decimals	F3a
Apply money in real-life problem situations	F3a
NUMBER SENSE AND NUMERATION	
Construct number meanings using real-world experiences and physical materials	F3a
Demonstrate place value to 1000	F3a
Use manipulatives to represent expanded form; translate into expanded form	F3a
Translate among words, manipulatives, numerals	F3a
Order numbers through 1000's (include number line models)	F3a
Interpret multi-uses of numbers such as cardinals, ordinals, measurement	F3a
Describe characteristics of numbers such as odds, evens	F3a
CONCEPTS OF WHOLE NUMBER OPERATIONS	
Write a story that models an operation in a given number sentence (examples pp. 42-43)	F3a, F3c
Given a situation, choose the appropriate operation	F3a
Understand various meanings of addition, subtraction, multiplication, and division (conceptual applications)	F3a
Determine effect of operations on numbers	F3a
Be able to use various strategies to solve problems	F2a, F3a
GEOMETRY AND SPATIAL SENSE (extensive use of Hands-on)	
Describe characteristics of two and three dimensional shapes and effects of combining them.	F3a
Demonstrate congruency, symmetry, reflection, 2D rotation (slides, flips, turns)	F3a
Demonstrate connections between geometry and arithmetic operations	F3a
Use reasoning in geometry such as geometric analogies	F3a
Recognize similar characteristics seen in different settings (p. 49)	F3a
MEASUREMENT (include: non-standard and standard units; metric and customary units).	
Use appropriate unit of measurement	F3a
Estimate and verify measurements	F3a
Describe estimation strategies (pg. 37)	F3a
Use appropriate measuring tools	F3a
Understand concepts of length, weight, capacity	F3a
Apply measurement to inter-disciplinary real-world problem solving situations	F3a
Use counting to determine area and volume	F3a
Read time and temperature	F3a

Maryland

Document Utilized

Learning Outcomes in Mathematics, Reading, Writing/Language Usage, Social Studies, and Science for Maryland School Performance Assessment Program (May, 1990).

Background

In December 1989, the Maryland State Board of Education established the Maryland School Performance Program, a systematic outcome-based approach for promoting student achievement and school performance. One component of this program features the development of new criterion-referenced assessment batteries in key subject areas for students in grades 3, 5, 8, and 11. The learning outcomes are broad in scope and will guide test contractors in their work with Maryland teachers and curriculum supervisors in the development of the assessments. The learning outcomes are mandatory. They are tied to the state assessments, which are part of a statewide accountability system for schools and school districts.

Maryland

MATHEMATICS--GRADES 3, 5, AND 8	NCEO CODE
Students will demonstrate their ability to solve problems in mathematics including problems with open-ended answers, problems which are solved in cooperative atmosphere, and problems which are solved with the use of technology.	F2a, F3a, F5a, G4b
Students will demonstrate their ability to communicate mathematically. They will read, write, and discuss mathematics with language and the signs, symbols, and terms of the discipline.	F3a
Students will demonstrate their ability to reason mathematically. They will make conjectures, gather evidence, and build arguments.	F2a, F3a
Students will demonstrate their ability to connect mathematics topics within the discipline and with other disciplines.	F3a, F4
Students will demonstrate their ability to apply estimation strategies in computation, with use of technology, in measurement, and in problem solving. They will determine reasonableness of solutions.	F2a, F3a, F5a
Students will demonstrate their ability to solve problems using arithmetic operations with technology where appropriate.	F2a, F3a, F5a
Students will demonstrate their ability to describe and apply number relationships using concrete and abstract materials. They will choose appropriate operations and describe effects of operations on numbers.	F3a
Students will demonstrate their ability to apply geometric relationships using one, two and three dimensional objects. They will demonstrate congruency, similarity, symmetry, reflection and apply these concepts to the solution of the geometric problems.	F3a
Students will demonstrate and apply concepts of measurement using non-standard and standard units and metric and customary units. They will estimate and verify measurements. They will apply measurement to interdisciplinary and real world problems solving situations.	F2a, F3a
Students will demonstrate the basic concepts of probability such as predicting and finding probabilities.	F3a
Students will demonstrate their ability to recognize numeric and geometric relationships and will generalize a relation from data.	F3a
Students will demonstrate their ability to perform algebraic operations and will be able to model algebraic concepts using concrete materials.	F3a
Students will demonstrate a positive attitude toward mathematics and will value and appreciate the role of mathematics in school, the culture, and society.	F3a

Maryland

	NCEO CODE
STATISTICS (use calculator as appropriate)	
Collect, organize, display data for given situations using appropriate displays such as, line plots, stem and leaf plots, bar, pictographs (scaled), glyphs	F3a
Interpret circle graphs and make inferences (include circle graphs)	F3a
Model concept of averaging	F3a
Write a descriptive paragraph that interprets data	F3a
PROBABILITY (extensive hands-on)	
List all possible outcomes (tree diagram)	F3a
Find probability of single event of equally likely outcomes	F3a
Predict the probability of an event with equally likely outcomes	F3a
PATTERNS AND FUNCTIONS (numeric and geometric)	
Given a functional relationship, describe how a change in one variable results in a change in the other (given a rectangle, describe the change in the perimeter if one side is doubled	F3a
Generalize a rule for a pattern	F3a
ALGEBRA	
Solve for missing number in a number sentence	F3a
Evaluate an expression, ex: 3+(5+2)	F3a
Given a function table write the rule	F3a
Demonstrate the concept of variable	F3a
Model expressions using concrete materials	F3a
READING OUTCOMES--GRADES 3,5,8 AND 11	
Students will demonstrate positive attitudes towards reading a variety of texts	no match
Students will demonstrate their ability to construct, extend, and examine meaning for a variety of texts by using strategic behavior and integrating both their prior knowledge about reading and topic familiarity.	F2a, F3b
Students will demonstrate their ability to vary their orientation to the text by interacting with a variety of texts for different purposes. Students will read for literary experience (novels, plays, short stories), to be informed (content texts, articles, editorials), and to perform a task (follow directions, some action required of students).	F3b
Students will demonstrate their ability to interact with texts through four stances: global understanding, developing interpretation, personal reflection/response, and critical stance in order to construct, examine, and extend meaning.	F3b
Students will demonstrate their ability to construct a global understanding when reading a variety of texts for different purposes by considering such things as the main theme or topic and the author's overall purpose or point of view.	F3b
Students will demonstrate their ability to develop an interpretation for a variety of texts and purposes by revisiting the text. Students will clarify, verify, and revise their understanding by considering such things as plot and character development, by organizing text information, or by following directions to complete a task.	F3b
Students will demonstrate their ability to construct a personal reflection/response by considering their prior knowledge and information from the text. Students will compare the author's point of view with their own or new information from the text with their own background knowledge	F2a, F3b
Students will demonstrate their ability to construct a critical stance for a variety of texts and purposes. In forming and substantiating a critical response, students will identify and analyze the author's perspective and craft.	F2a, F3b
READING OUTCOMES MODEL--GRADES 3, 5, 8, 11	
CONSTRUCTING, EXAMINING, AND EXTENDING MEANING	
Students will demonstrate their ability to construct, examine, and extend meaning for a variety of texts and purposes through four reading stances: global understanding, developing	F3b

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Maryland

	NCEO CODE
interpretation, personal reflection/response, and a critical stance. Student's ability to integrate their knowledge about texts, topic familiarity, and strategic behavior will help bring about the construction, examination, and extension of meaning.	
READ FOR LITERARY EXPERIENCE--GLOBAL UNDERSTANDING	
Students will demonstrate their ability to develop initial understanding to a variety of texts and for different purposes.	F3b
REPRESENTATIVE INDICATORS	
Identify theme	F3b
Identify a character's or story's main problem	F3b
DEVELOPING INTERPRETATION	
Students will demonstrate their ability to develop interpretation for a variety of texts and purposes by revisiting the text to clarify, verify, and revise their understanding.	F3b
REPRESENTATIVE INDICATORS	
Identify traits of character (s)	F3b
Identify plot development	F3b
Note character change	F3b
Describe mood	F3b
Enumerate steps the character takes to solve a problem	F3b
Retell or summarize the story	F3b
Read with expression/intonation	F3b
Dramatize the story	F3b
PERSONAL REFLECTION/RESPONSE	
Students will demonstrate their ability to develop personal response to the text by considering their prior knowledge and information from the text.	F3b
REPRESENTATIVE INDICATOR	
Compare/contrast with their personal views and experience the author's view of human experience and character.	F3b
CRITICAL STANCE	
Students will demonstrate their ability to develop a critical stance by identifying and analyzing the authors perspective and craft.	F2a, F3b
REPRESENTATIVE INDICATORS	
Identify and analyze the author's perspective (e.g., bias)	F2a, F3b
Analyze literary elements of the authors craft (e.g. irony, flashback, writing pattern)	F2a, F3b
Form and substantiate a qualitative judgment	F2a, F3b
READ TO BE INFORMED	
Identify an author's overall purpose/point of view	F3b
Identify the general meaning of a passage	F3b
Clarify information and concepts	F3b
Reorganize text information	F3b
Identify new information in passage	F3b
Identify and evaluate types of information that author uses	F3b
READ TO PERFORM A TASK	
Identify the overall purpose or organization of a document	F3b
Find specific information in a document	F3b
Relate graphics to text	F3b
Clarify information, steps, and/or organization	F3b
Follow directions to complete a task	F3b
Compare information in the passage with prior knowledge	F3b
Tell how information in the document relates to one's own background knowledge	F3b

Maryland

	NCEO CODE
Identify author's writing devices (e.g., propaganda techniques)	F3b
Judge the usefulness and clarity of the document	F3b
Give possible outcomes of directions	F3b
WRITING/LANGUAGE USAGE OUTCOMES	
The students will demonstrate ability to write for various audiences and to address a variety of purposes--to inform, to persuade, to express personal ideas.	F3c
The students will demonstrate ability to use appropriate style and conventions for a variety of audiences and purposes.	F3c
The students will develop as writers through frequent writing experiences and many opportunities to interact with each piece of writing, having had occasions to prewrite, draft, revise, and proofread.	F3c
The students will demonstrate ability to write effectively to inform by developing and organizing relevant information, establishing an argumentative purpose, and by designing an appropriate strategy for an identified audience. In this way, students will establish and support a meaningful position.	F3c
The students will demonstrate ability to write effectively to persuade by selecting and organizing relevant information, establishing an argumentative purpose, and by designing an appropriate strategy for an identified audience. In this way, students will create meaning using personal or fictional ideas.	F3c
The students will demonstrate ability to write effectively to express personal ideas by selecting a form and its appropriate elements (e.g., plot, dialogue, rhyme scheme, etc.) In this way, students will create meaning using personal or fictional ideas.	F3c
The students will demonstrate ability to write effectively by considering correctness, completeness, and appropriateness and by making conscious language choices that create style and tone and affect reader response. In this way, students will focus on sentence form, word choice, grammar, usage, punctuation, capitalization, and spelling.	F3c
The students will demonstrate positive attitudes toward writing.	no match
WRITING/LANGUAGE USAGE OUTCOMES MODEL--GRADES 3, 5, 8, 11	
PREWRITING	
Uses background and knowledge	F3c
Generates ideas for topics	F3c
Establishes meaning	F3c
Sets purpose	F3c
Orders ideas	F3c
Identifies audiences	F3c
Chooses form	F3c
DRAFTING	
Writes first draft for a purpose and an audience	F3c
REVISING	
Uses self, peer, and teacher input to revise	F3c
Considers changes	F3c
Considers completeness	F3c
Considers appropriateness of style	F3c
PROOFREADING	
Considers correctness	F3
SOCIAL STUDIES OUTCOMES--GRADES 3, 5 AND 11	
Students will demonstrate an understanding of the historical development and present function of principles, institutions, and processes of political systems in Maryland and the United States.	F4a

Maryland

	NCEO CODE
interpretation, personal reflection/response, and a critical stance. Student's ability to integrate their knowledge about texts, topic familiarity, and strategic behavior will help bring about the construction, examination, and extension of meaning.	
READ FOR LITERARY EXPERIENCE--GLOBAL UNDERSTANDING	
Students will demonstrate their ability to develop initial understanding to a variety of texts and for different purposes.	F3b
REPRESENTATIVE INDICATORS	
Identify theme	F3b
Identify a character's or story's main problem	F3b
DEVELOPING INTERPRETATION	
Students will demonstrate their ability to develop interpretation for a variety of texts and purposes by revisiting the text to clarify, verify, and revise their understanding.	F3b
REPRESENTATIVE INDICATORS	
Identify traits of character (s)	F3b
Identify plot development	F3b
Note character change	F3b
Describe mood	F3b
Enumerate steps the character takes to solve a problem	F3b
Retell or summarize the story	F3b
Read with expression/intonation	F3b
Dramatize the story	F3b
PERSONAL REFLECTION/RESPONSE	
Students will demonstrate their ability to develop personal response to the text by considering their prior knowledge and information from the text.	F3b
REPRESENTATIVE INDICATOR	
Compare/contrast with their personal views and experience the author's view of human experience and character.	F3b
CRITICAL STANCE	
Students will demonstrate their ability to develop a critical stance by identifying and analyzing the authors perspective and craft.	F2a, F3b
REPRESENTATIVE INDICATORS	
Identify and analyze the author's perspective (e.g., bias)	F2a, F3b
Analyze literary elements of the authors craft (e.g. irony, flashback, writing pattern)	F2a, F3b
Form and substantiate a qualitative judgment	F2a, F3b
READ TO BE INFORMED	
Identify an author's overall purpose/point of view	F3b
Identify the general meaning of a passage	F3b
Clarify information and concepts	F3b
Reorganize text information	F3b
Identify new information in passage	F3b
Identify and evaluate types of information that author uses	F3b
READ TO PERFORM A TASK	
Identify the overall purpose or organization of a document	F3b
Find specific information in a document	F3b
Relate graphics to text	F3b
Clarify information, steps, and/or organization	F3b
Follow directions to complete a task	F3b
Compare information in the passage with prior knowledge	F3b
Tell how information in the document relates to one's own background knowledge	F3b

Maryland

	NCEO CODE
Recognize the dignity and worth of people from cultural, racial, religious, ethnic, and other diverse groups.	G3b
Analyze the impact of social situations and the media on the behavior of individuals and groups.	F4a
UNDERSTANDING ATTITUDES	
Students will demonstrate attainment of understanding and attitudes needed to secure a reasoned commitment to human dignity, justice, and democratic processes.	D, E
GRADES 4-5/UNDERSTANDINGS AND ATTITUDES	
Provide examples that demonstrate an understanding of and commitment to the rule of law.	E1a, E1c
Examine situations in Maryland and U.S. history that illustrate conflict between conscience and respect for authority.	F4a
Analyze situations in Maryland and U.S. history in which individuals demonstrate respect and support for the rights and dignity of all peoples.	F4a, G3b
Participate in classroom and school activities in which respect for majority rule and the rights of the individual is demonstrated.	no match
PEOPLES OF THE NATION AND WORLD	
Students will demonstrate an understanding of the history, diversity, and commonalty of the peoples of the nation and world, the reality of human interdependence, the need for global cooperation, and a multicultural perspective.	F4a, G3b
Summarize the main points of current events.	F4a
GRADES 4-5/PEOPLES OF THE NATION AND WORLD	
Analyze the characteristics of various cultures as evidenced in the development of Maryland and the U.S.	F4a
Analyze the diverse cultural contributions that influenced the development of Maryland and the U.S.	F4a
Predict conflicts in values or beliefs may affect relationships among individuals or groups within the U.S.	F4a
Examine decisions made by citizens of Maryland and the U.S. in terms of consequences for other peoples of the world, and vice versa	F4a
Using current events, predict its impact on individuals, including oneself.	F4a
GEOGRAPHY	
Students will demonstrate an understanding of geographic concepts and processes as needed to examine the role of culture, technology, and the environment in the location and distribution of human activities.	F4a
GRADES 4-5/GEOGRAPHY	
Locate places and natural features y interpreting and constructing maps using directions, legends, grid systems, boundary lines, and scales.	F4a
Examine people's adaptation to and modification of their environment as a result of changes in technology.	F4a
Examine the impact of geography on the industrial growth and economic prosperity of communities in the state, nation, and world.	F4a
Predict the effects of living in a given geographic setting on people's lives.	F4a
Examine how people of the state and nation are linked by transportation and communication networks.	F4a
Examine different ways of defining a region	F4a
Demonstrate a sense of personal responsibility for environmental decisions made at the state and national levels	F4a
ECONOMICS	
Students will demonstrate an understanding of the historical development and current status of economic principles, institutions, and processes needed to be effective citizens, consumers, and workers in American society.	F4a

Maryland

	NCEO CODE
GRADES 4-5/ECONOMICS	
Describe the relationship between available resources and the production of goods and services.	F4a
Explain how the exchange of goods and services connects Maryland with the world.	F4a
Describe the relationship of supply and demand to the production and consumption of goods and services.	F4a
Examine examples of various types and uses of taxes.	F4a
Analyze historical and economic factors which have contributed to the growth and development of Maryland's economy.	F4a
Analyze the effects of economic growth on the standards of living of individuals.	F4a
SUGGESTED SCIENCE OUTCOMES	
Students will demonstrate their acquisition and integration of major concepts and unifying themes from the life, physical, and earth/space sciences.	F4a
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F4a
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practice science.	F4a, G2a
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting, and communicating information.	F4a
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affecting the individual, society, and the environment.	F2a, F4a
SCIENCE OUTCOMES MODEL--GRADES 3, 5, 8, 11	
STUDENTS WILL DEMONSTRATE THEIR ACQUISITION AND INTEGRATION OF MAJOR CONCEPTS AND UNIFYING THEMES FROM THE ***LIFE SCIENCES.***	
CURRICULUM FOCUS OF STATES SCIENCE ASSESSMENT--GR 4-5	
The life science program (4-5) includes an emphasis on collection of evidence to explain observation of the interaction and interdependence of living things.	
NATURE OF SCIENCE (not grade level specific)	
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F1a, F4a
HABITS OF MIND (not grade level specific)	
Students will demonstrate ways of thinking and acting inherent to the practice of science.	F4a
ATTITUDES (not grade level specific)	
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practice science.	F4a, G2a
SCIENCE PROCESSES (not grade level specific)	
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting and communication information.	F1a, F2a, F4a
APPLICATION (not grade level specific)	
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affecting the individual, society and the environment.	F2a, F4a
STUDENTS WILL DEMONSTRATE THEIR ACQUISITION AND INTEGRATION OF MAJOR CONCEPTS AND UNIFYING THEMES FROM THE ***EARTH/SPACE SCIENCES.***	

Maryland

	NCEO CODE
The earth/space science program (4-5) includes and emphasis on identification and investigation of natural resources and processes that contribute to the uniqueness of the earth in our solar system.	
NATURE OF SCIENCE (not grade level specific)	
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F1a, F4a
HABITS OF MIND (not grade level specific)	
Students will demonstrate ways of thinking and acting inherent to the practice of science.	F4a
ATTITUDES (not grade level specific)	
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practices science.	F4a, G2a
SCIENCE PROCESSES (not grade level specific)	
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting and communication information.	F1a, F2a, F4a
APPLICATION (not grade level specific)	
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affection the individual, society and the environment.	F2a, F4a
STUDENTS WILL DEMONSTRATE THEIR ACQUISITION AND INTEGRATION OF MAJOR CONCEPTS AND UNIFYING THEMES FROM THE ***PHYSICAL SCIENCES***	
The physical science program (4-5) includes and emphasis on exploration of the behavior and underlying structure of matter and the interactions of matter and energy.	
NATURE OF SCIENCE (not grade level specific)	
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F1a, F2a, F4a
HABITS OF MIND (not grade level specific)	
Students will demonstrate ways of thinking and acting inherent to the practice of science.	F4a
ATTITUDES (not grade level specific)	
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practices science.	F4a, G2a
SCIENCE PROCESSES (not grade level specific)	
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting and communication information.	F1a, F2a, F4a
APPLICATION (not grade level specific)	
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affection the individual, society and the environment.	F2a, F4a

Maryland

	NCEO CODE
GRADES 4-5/ECONOMICS	
Describe the relationship between available resources and the production of goods and services.	F4a
Explain how the exchange of goods and services connects Maryland with the world.	F4a
Describe the relationship of supply and demand to the production and consumption of goods and services.	F4a
Examine examples of various types and uses of taxes.	F4a
Analyze historical and economic factors which have contributed to the growth and development of Maryland's economy.	F4a
Analyze the effects of economic growth on the standards of living of individuals.	F4a
SUGGESTED SCIENCE OUTCOMES	
Students will demonstrate their acquisition and integration of major concepts and unifying themes from the life, physical, and earth/space sciences.	F4a
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F4a
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practice science.	F4a, G2a
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting, and communicating information.	F4a
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affecting the individual, society, and the environment.	F2a, F4a
SCIENCE OUTCOMES MODEL--GRADES 3, 5, 8, 11	
STUDENTS WILL DEMONSTRATE THEIR ACQUISITION AND INTEGRATION OF MAJOR CONCEPTS AND UNIFYING THEMES FROM THE ***LIFE SCIENCES.***	
CURRICULUM FOCUS OF STATES SCIENCE ASSESSMENT--GR 4-5	
The life science program (4-5) includes an emphasis on collection of evidence to explain observation of the interaction and interdependence of living things.	
NATURE OF SCIENCE (not grade level specific)	
Students will demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena.	F1a, F4a
HABITS OF MIND (not grade level specific)	
Students will demonstrate ways of thinking and acting inherent to the practice of science.	F4a
ATTITUDES (not grade level specific)	
Students will demonstrate positive attitudes toward science and its relevance to the individual, society, and the environment and demonstrate confidence in their ability to practice science.	F4a, G2a
SCIENCE PROCESSES (not grade level specific)	
Students will demonstrate the ability to employ the language, instruments, methods, and materials of science for collecting, organizing, interpreting and communication information.	F1a, F2a, F4a
APPLICATION (not grade level specific)	
Students will demonstrate the ability to apply science in solving problems and making personal decisions about issues affecting the individual, society and the environment.	F2a, F4a
STUDENTS WILL DEMONSTRATE THEIR ACQUISITION AND INTEGRATION OF MAJOR CONCEPTS AND UNIFYING THEMES FROM THE ***EARTH/SPACE SCIENCES.***	

Michigan

	NCEO CODE
B. ATTENDING	
At the **High School, Middle/Junior High, and Elementary levels**, students will:	
Outcome 1: Exhibit good attentive listening behavior.	F1
Objective 1. Recognize situations which require listening.	F1
2. Give full attention to the message (e.g., use monitoring cues to aid turn-taking).	F1
3. Focus on a significant, single stimulus.	F1
4. Identify internal (e.g., daydreaming) and external (e.g., faking attention) distractions.	F1
5. Attend to visual as well as auditory cues.	F1
Outcome 2: Apply the different functions of listening.	F1
Objective 1 Listen to imagine.	F1
2. Listen for information.	F1
3. Listen to assess and evaluate.	F1, F2a
4. Listen for pleasure.	F1
5. Listen to discover affective messages.	F1
Outcome 3: Recognize the different purposes of listening.	F1
Objective 1. Recognize the discriminative purpose.	F1
2. Recognize the comprehensive purpose.	F1
3. Recognize the therapeutic purpose.	F1
4. Recognize the critical purpose.	F1
5. Recognize the appreciative purpose.	F1
C. ASSIGNING	
At the **High School, Middle/Junior High, and Elementary levels**, students will:	
Outcome 1: Apply principles of listening to secure essential information.	F1
Objective 1. Paraphrase an oral statement completely and accurately.	F1
2. Retell an oral account in sequence.	F1
3. Identify the main idea in an oral message.	F1
4. Identify supporting detail in an oral message.	F1
Outcome 2: Recognize organizational patterns.	F1
Objective 1. Recognize chronological patterns.	F1
2. Recognize topical patterns.	F1
3. Recognize spatial patterns.	F1
4. Recognize comparison and contrast patterns.	F1
5. Recognize problem-solution patterns.	F1
6. Recognize climactic patterns.	F1
7. Recognize organizational devices, such as transitions that help to determine meaning.	F1
Outcome 3: Comprehend spoken messages.	F1
Objective 1. Identify the communication rituals used in everyday situations (e.g., legal, occupational, religious, social).	F1
2. Recognize the effects of word choice (e.g., jargon, time-bound language) on comprehension.	F1
3. Develop the ability to concentrate more on content rather than presentation.	F1
4. Use verbal and nonverbal cues to determine meaning and sequence.	F1
5. Distinguish between connotative and denotative meanings.	F1
6. Compare new information to ideas and concepts retained in memory.	F1
D. EVALUATING	
At the **High School, Middle/Junior High, and Elementary levels**, students will:	
Outcome 1: Use cognitive and affective elements of the message to give meaning to the listener.	F1
Objective 1. Distinguish between fantasy and reality.	F1, F4
2. Distinguish between fact and opinion.	F1
3. Distinguish between literal and figurative.	F1
4. Distinguish between objective and emotional.	F1
5. Distinguish between relevant and irrelevant.	F1

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	NCEO CODE
6. Distinguish between complete and incomplete messages.	F1
7. Distinguish between clear and unclear messages.	F1
Outcome 2: Distinguish between valid and invalid inferences.	F1, F2a
Objective 1. Recognize the effects of propaganda techniques on meaning.	
E. RESPONDING	
At the High School, Middle/Junior High, and Elementary levels, students will:	
Outcome 1: Listen to understand the message.	F1
Objective 1. Use intrapersonal skills to review the meaning of a message.	F1
2. Validate understanding of the message by an objective oral synopsis of the information.	F1
3. Recognize the effects of personal bias on meaning.	F1
Outcome 2: Promote a supportive communication environment.	F1
Objective 1. Encourage self-disclosure in others through supportive feedback.	
2. Provide appropriate minimal reinforcers (e.g., head nods, "uh-huh") while receiving communication.	F1
3. Time response to reflect a sensitivity to the communication process.	F1
F. REMEMBERING	
At the High School, Middle/Junior High, and Elementary levels, students will:	
Outcome 1: Retain information in both short-term and long-term memory.	no match
Objective 1. Use note taking techniques to record current information, to retrieve prior knowledge, and to link old information with new.	F4
2. Use semantic mapping.	no match
3. Use precise writing.	F3c
4. Use principle-fact techniques.	F4
5. Use the standard outline form in both key word and sentence form.	F3c
Outcome 2: Apply memory techniques to aid retention of messages.	F4
Objective 1. Use a grouping system.	F4
2. Use an ordering system.	F4
3. Use a reordering system.	F4
4. Use mnemonic strategies.	F4
SPEAKING	
A. MESSAGES	
1. Ethics	
At the Elementary level, students will:	
Outcome 1: Demonstrate an understanding of the relationship between oral communication and values.	no match
Objective 1. Develop a personal communication philosophy that is truthful, honest, and responsible.	no match
2. Demonstrate an awareness that because there are different ways to present the same subject, the oral communication should reflect the values of a communicator.	F1a
3. Recognize the effects of plagiarism on communication.	F1
2. Evidence	
At the Elementary level, students will:	
Outcome 1: Recognize the basic categories of proof that a communicator can use to establish a position in an oral communication.	F1
Objective 1. Identify and discuss the use of examples to support ideas in a communication.	F1
2. Identify and discuss the use of statistics to support ideas in a communication.	F1
3. Identify and discuss the use of testimony to support ideas in a communication.	F1

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	NCEO CODE
3. Reasoning	
At the **Elementary level,** students will:	
Outcome 1: Apply principles of analytical thinking.	F2a
Objective 1. Examine available data, such as physical data, symbolic material, basic assumptions.	F2a
2. Order (inclusion, exclusion) available data.	F2a
3. Draw conclusions about data.	F2a
4. Language	
At the **Elementary level,** students will:	
Outcome 1: Recognize differences between oral and written communication.	F1a
Objective 1. Identify and use language that is clear.	F1a
2. Identify and use language that is expressive.	F1a
3. Identify and use language that is suitable.	F1a
5. Audience Analysis	
At the **Elementary level,** students will:	
Outcome 1: Recognize the influence that physical and societal demographic characteristics can have on the response of an audience.	F1
Objective 1. Apply the general components of demographic audience analysis (e.g., age, gender, religion, racial, ethnic, and cultural background) to different settings.	F1
Outcome 2: Demonstrate an understanding of how situational audience analysis impacts the speaker audience relationship.	F1
Objective 1. Determine how the size of an audience can affect a communication.	F1
2. Determine how the environment for an audience can affect a communication.	F1
B. STRUCTURE	
1. Organizational Analysis	
At the **Elementary level,** students will:	
Outcome 1: Demonstrate an awareness that each presentation will have a singular major ideas that requires further development.	F4
Objective 1. Identify central ideas in various oral communications.	F1, F4
Outcome 2: Demonstrate that all major ideas in a communication have support.	F1
Objective 1. Identify the position of main points to develop a central idea.	F1, F4
2. Identify the role of subpoints to develop a main point.	F1, F4
3. Recognize how supporting materials help prove a main point.	F1, F4
Outcome 3: Identify the various purposes of communication.	F1
Objective 1. Recognize when the purpose of a message is to inform.	F1
2. Recognize when the purpose of a message is to entertain.	F1
3. Recognize when the purpose of a message is to persuade.	F1
2. Introductions	
At the **Elementary level,** students will:	
Outcome 1: Organize oral messages into specific sequential components to help identify an introduction.	F1
Objective 1. Develop messages with three basic components--introduction, body, conclusion--with the highlight on the introduction.	F1a
3. Conclusions	
At the **Elementary level,** students will:	
Outcome 1: Organize oral messages into specific sequential components to help identify a conclusion.	F1a
Objective 1. Develop messages with three basic components--introduction, body, conclusion--with the highlight on the conclusion.	F1a

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	NCEO CODE
6. Distinguish between complete and incomplete messages.	F1
7. Distinguish between clear and unclear messages.	F1
Outcome 2: Distinguish between valid and invalid inferences.	F1, F2a
Objective 1. Recognize the effects of propaganda techniques on meaning.	
E. RESPONDING	
At the **High School, Middle/Junior High, and Elementary levels**, students will:	
Outcome 1: Listen to understand the message.	F1
Objective 1. Use intrapersonal skills to review the meaning of a message.	F1
2. Validate understanding of the message by an objective oral synopsis of the information.	F1
3. Recognize the effects of personal bias on meaning.	F1
Outcome 2: Promote a supportive communication environment.	F1
Objective 1. Encourage self-disclosure in others through supportive feedback.	
2. Provide appropriate minimal reinforcers (e.g., head nods, "uh-huh") while receiving communication.	F1
3. Time response to reflect a sensitivity to the communication process.	F1
F. REMEMBERING	
At the **High School, Middle/Junior High, and Elementary levels**, students will:	
Outcome 1: Retain information in both short-term and long-term memory.	no match
Objective 1. Use note taking techniques to record current information, to retrieve prior knowledge, and to link old information with new.	F4
2. Use semantic mapping.	no match
3. Use precise writing.	F3c
4. Use principle-fact techniques.	F4
5. Use the standard outline form in both key word and sentence form.	F3c
Outcome 2: Apply memory techniques to aid retention of messages.	F4
Objective 1. Use a grouping system.	F4
2. Use an ordering system.	F4
3. Use a reordering system.	F4
4. Use mnemonic strategies.	F4
SPEAKING	
A. MESSAGES	
1. Ethics	
At the **Elementary level**, students will:	
Outcome 1: Demonstrate an understanding of the relationship between oral communication and values.	no match
Objective 1. Develop a personal communication philosophy that is truthful, honest, and responsible.	no match
2. Demonstrate an awareness that because there are different ways to present the same subject, the oral communication should reflect the values of a communicator.	F1a
3. Recognize the effects of plagiarism on communication.	F1
2. Evidence	
At the **Elementary level**, students will:	
Outcome 1: Recognize the basic categories of proof that a communicator can use to establish a position in an oral communication.	F1
Objective 1. Identify and discuss the use of examples to support ideas in a communication.	F1
2. Identify and discuss the use of statistics to support ideas in a communication.	F1
3. Identify and discuss the use of testimony to support ideas in a communication.	F1

Michigan

	NCEO CODE
COMPUTER EDUCATION	
I. COMPUTING AND ITS EVOLVING ROLE IN A TECHNOLOGICAL SOCIETY, GRADES 4-6	
RATIONALE: Students need to be aware of the role of technology and its future impact on society, as well as their lives. As members of a society which utilizes technology and information processing, students also need to be cognizant of the social issues involved, their ethical obligations, and the legal responsibilities related to computer usage. By gaining a historical perspective, students will be able to identify trends in computing and formulate ideas about the future evolution and effect of the technology.	
A. History of Computers and Computing	
Goal: To understand the historical development of the computer.	F4a
Objective: The learner will: 1. Identify some major historical computing devices.	F4a
B. Role and Impact	
Goal: To appreciate the role and impact of computers in society	
Objective: The learner will:	
2. Describe computer-related careers	F4a
3. Summarize those aspects of modern life that are possible because of the invention of the computer.	F4a
C. Social Issues	
Goal: To understand the current and emerging ethical and social issues raised by the increased use of computers.	F4a
Objective: The learner will: 1. Discuss the implications of the copyrights laws	F4a
D. Future Trends	
Goal: To formulate theories about the future evolution and effect of computers and other emerging technologies.	F4a
Objective: The learner will: NONE	
II. COMPUTING FUNDAMENTALS, GRADES 4-6	
RATIONALE: This strand of Essential Goals and Objectives for Computer Education comprises skills and knowledge which permit the student, through actual use, to independently operate a computer system successful. It is recommended that basic skills be learned before more advanced topics and objectives are addressed.	
A. Understanding Computer Systems	
Goal: To understand the basic operation, terminology, and parts of computer systems	F5a
Objective: The learner will:	
6. List some of the capabilities and limitations of computer systems	F5a
7. Explain the role of computer programming in computer operation	F5a
B. Operating Computer Systems	
Goal: To independently operate a computer system	F5a
Objective: The learner will:	
5. Analyze and correct routine problems encountered in hardware and software use	F5a
6. Demonstrate use of essential system commands	F5a
7. Demonstrate use of selected peripheral devices for a computer system	F5a
III. COMPUTER APPLICATIONS, GRADES 4-6	
RATIONALE: Students need to use application software to understand how the computer can become a tool for solving problems. By becoming proficient in using word processing, database management, and an electronic spreadsheet and familiar with computer graphics, communications software, and computer programming, a foundation will be built for enhancing problem solving skill.	
A. Word Processing	
Goal: To understand the creation, modification, and display of text using word processing.	F5a

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Objective: The learner will:	
4. Store prepared data	F5a
5. Load previously stored text into the computer	F5a
6. Revise previously stored text	F5a
B. Database Management	
Goal: To understand the process of information management using a database	F5a
Objective: The learner will:	
1. Retrieve information from an already developed database	F5a
2. Search the database for specific information	F5a
3. Analyze the information retrieved from a database	F5a
4. Print selected document(s)	F5a
C. Electronic Spreadsheet	
Goal: To understand the process of numeric manipulation using an electronic spreadsheet	F5a
Objective: The learner will: NONE	
D. Computer Graphics	
Goal: To become familiar with computer graphics	F5a
Objective: The learner will: 1. Create a design using a prepared software package or a computer language	F5a
E. Computer Communications	
Goal: To become familiar with communications between two or more computers	F5a
Objective: The learner will: NONE	
F. Computer Programming	
Goal: To become familiar with programming in a computer language	F5a
Objective: The learner will: 1. Develop skills in using basic elements and commands of a computer language such as Logo or BASIC	F5a
IV. COMPUTER ENHANCED PROBLEM SOLVING	
RATIONALE: The computer can enhance the process of problem solving within the K-12 curriculum. Software designed to specifically develop problem solving skills can provide a foundation for application of these skills. The programs highlighted in the Computer Applications strand of this document are excellent tools to assist in applying these problem solving skills.	
The development and application of problem solving skills using the computer are best accomplished when students work together. Computer interaction is most effective when human interaction is emphasized and encouraged.	
GRADES 4-6	
A. The Computer as a Problem Solving Tool	
Goal: To understand how computer-related tools can be used in the problem solving process	F2a, F5a
Objective: The student will: 2. Determine an appropriate course of action and evaluate the results of the action when a problem is presented through a computer simulation.	F2a, F5a
ARTS EDUCATION (K-12)	
THE GOALS OF DANCE EDUCATION	
Goal I To use dance as a vehicle for self-expression through kinesthetic, affective, cognitive, and aesthetic aspects of the movement discipline.	F4b
a. Because the self is the primary instrument of dance, the learner will become aware of the body, its range and limitations of movement: what the body can do; how the body can move; where it moves.	F4b
b. The skills, understandings, and attitudes that students acquire through dance help them to externalize their reactions to life, foster the appreciation of beauty, challenge the intellect and broaden their social capacities.	F4b
Goal II: To develop perceptive, imaginative, cognitive, and creative abilities through dance experiences.	F4b

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a. Students of dance become acutely aware of their own ideas and feelings, developing the ability to perceive with greater sensitivity, and providing bases for making informed choices.	F4b
b. Dance helps students use the senses to perceive abstract and concrete meanings.	F4b
c. Dance provides opportunities for students to engage in the process of forming their ideas, concepts and beliefs. They are encouraged to find new movements and/or to organize known movements in new ways. The student is at once both teacher and learner.	F4b
Goal III To understand the value of dance for the development of self concept and social awareness.	F4b
a. Because dance engages the self, the learner comes to understand more about the unique physical strengths and weaknesses of his/her own body and that of others.	F4b
b. Dance students learn the necessity for give and take as they communicate their ideas and work toward satisfaction in problem solving.	F4b
c. The dancer learns about human interaction and seeks to understand and regard the ideas of others.	F4b
Goal IV To develop respect for the originality of expression in ourselves and in response to others in nonverbal communication.	F4b
a. Dance students learn to trust their own inventiveness, to take risks, accept challenges, to express and give form to feelings and ideas for the purpose of self-elucidation and to share these feelings and ideas with others.	F4b
b. Dance requires the learner to bring aesthetic criteria to the evaluation and an appreciation of composition, choreography and performance.	F4b
Goal IV To foster understanding of the role of dance in our culture and in the culture of other people in an historical context.	F4b
a. Students will learn about the development of dance in America by participating in dance forms indigenous to America and studying the development through both cursory and in-depth historical references.	F4b
b. Students will learn about the development of dance in historical periods, the cultural influence of dance during these periods and gain knowledge of the structure and meaning of dances of other cultures through the study of and participation in a variety of dance forms.	F4b
c. Students learn about other art forms and the role of the arts and humanities in the development of diverse cultures.	F4b
Goal VI To develop internal and external skills and resources.	F4b
a. Dance activities provide a natural vehicle for the externalization of knowledge and skills. The student assimilates knowledge through the processes of exploration, improvisation, problem solving, dance making, and choreography.	F4b
b. Students discover new aspects of themselves and the dance experience through the developmental acquisition of skills.	F4b
c. The student acquires greater knowledge of the related arts and develops the ability to draw on these resources.	F4b
d. The student develops the ability to refine the intent of a creative idea.	F4b
DRAMA/THEATER EDUCATION, GRADES K-3	
I=INTRODUCTION OF SKILLS OR CONCEPTS **D=DEVELOPMENT OF SKILLS OR CONCEPTS** **R=REINFORCEMENT AND REFINEMENT**	
GOALS AND OBJECTIVES FOR DRAMA/THEATER	
I. DEVELOP INTERNAL AND EXTERNAL PERSONAL RESOURCES	
A. Sensory and Emotional Perception	
D 1. Respond to and focus on details of sensory and emotional experiences.	F4b
D 2. Use sensory and emotional recall to develop experiences as actor and viewer.	F4b
D 3. Recognize individual differences in sensory perception and emotional states.	F4b

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	NCEO CODE
Objective: The learner will:	
4. Store prepared data	F5a
5. Load previously stored text into the computer	F5a
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Goal II: To develop perceptive, imaginative, cognitive, and creative abilities through dance experiences.	F4b

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	C.	**Improvisation**	
D	1.	Participate in dramatic play and improvised dramatic activities.	F4b
D	2.	Use improvisation for scripted and unscripted material.	F4b
I	3.	Recognize the use of improvisation in preparing and performing theater production.	F4b
	D.	**Characterization**	
D	1.	Assume roles through imitation.	F4b
D	2.	Explore a variety of roles in life and fantasy situations.	F4b
D	3.	Incorporate physical, emotional, and social dimensions of roles and characters.	F4b
I	4.	Develop and use the skill of analysis in creating characters.	F4b
	E.	**Playmaking/Playwriting**	
D	1.	Apply observations of and imitate life experiences and imaginary scenes in dramatic activities.	F4b
D	2.	Participate in playmaking focusing on the development and resolution of dramatic problems.	F4b
	F.	**Directing**	
I	1.	Recognize and understand the role and responsibilities of the director.	F4b
I	2.	Comprehend and respond to the directing process.	F4b
	G.	**Technical Elements**	
D	1.	Recognize selected aspects of the real and/or imaginary environment during dramatic play.	F4b
I	2.	Recognize and explore the effect of selected elements of technical theater in dramatic activities.	F4b
I	3.	Select elements of technical theater to enhance dramatic activities.	F4b
ID	4.	Recognize the contributions of technical elements in creating theatrical effects.	F4b
III.	**RELATE DRAMA/THEATER TO ITS SOCIAL CONTEXT**		
	A.	**Drama/Theater and Life**	
D	1.	Explore similarities and differences between life and drama/theater.	F4b
I	2.	Reflect upon personal and universal meanings in drama/theater.	F4b
	B.	**Roles and Careers**	
D	1.	Use role-playing to develop awareness of a variety of social roles and occupations.	F4b
I	2.	Explore selected occupations in theater.	F4b
	C.	**Theater Heritage**	
D	1.	Develop awareness of historical and multicultural concepts through dramatic activities.	F4a, F4b, G3b
I	2.	Discover and explore motifs and themes in drama/theater.	F4b
IV.	**FORM AESTHETIC JUDGMENTS**		
	A.	**Dramatic Elements**	
	B.	**Theater Attendance**	
D	1.	Respond to live theater.	F4b
I	2.	Analyze live theater.	F4b
	C.	**Theater and Other Arts**	
D	1.	Experience various art forms and relate to drama/theater.	F4b
I	2.	Examine relationships between theater and other arts.	F4b
	D.	**Aesthetic Response**	
D	1.	Recognize and respond to unique qualities of drama/theater.	F4b
D	2.	Explore drama/theater in order to understand and appreciate the creative process.	F4b
MUSIC EDUCATION			
	GENERAL OUTCOMES "A music program should be designed to produce individuals who:		
1.	are able to make music, alone and with others;		F4b, G4b
2.	are able to improvise and create music;		F4b

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3. are able to use the vocabulary and notation of music;	F4b
4. are able to respond to music aesthetically, intellectually and emotionally;	F4b
5. are acquainted with a variety of music including diverse musical styles and genres;	F4b
6. understand the role music has played and continues to play in the lives of human beings;	F4b
7. are able to make aesthetic judgments based on critical listening and analysis;	F4b
8. have developed a commitment to music;	F4b
9. support the musical life of the community and encourage their musical learning independently."*	F4b
*School of Music Program: Description and Standards, Reston, VA: Music Educators Conference, 2nd Ed., 1986, pp. 13-14.	
MUSICAL ATTITUDES AND VALUES	
The development of useful attitudes and values through music should happen over the entire K-12 curriculum in all courses. As the result of an education in music, students should develop the following attitudes and values:	
1. Recognize that music plays an important part in everyday life.	F4b
2. Recognize the interaction of music and society.	F4b
3. Consider music as a way to interpret human experience.	F4b
4. Recognize unique qualities inherent in musical expressions of various cultures and traditions.	F4b
5. Make aesthetic judgments based on musical understanding.	F4b
6. Become a more discriminating listener and make informed choices about what music to listen to or purchase.	F2a, F4b
7. Examine relationships between music and other arts.	F4b
8. Seek new musical experiences and attend musical performances.	F4b
9. Make informed judgments about music.	F4b
10. Feel a sense of respect for music and its performance and creation.	F4b
11. Use music as a means of personal expression through singing, playing instruments, or listening.	F4b
12. Participate in music for enjoyment and during leisure time.	F4b
13. Seek information about music, musicians and musical activities.	F4b
14. Involve friends and family members with music.	F4b
15. Participate in community performing groups.	F4b
16. Read articles, books, newspaper accounts and reviews concerning music, musicians and musical topics.	F4b
17. Value music in the life of the individual, family, and community.	F4b
MUSIC IN HISTORICAL, CULTURAL AND SOCIAL CONTEXTS	
Music can represent and reflect many things about the cultural aspects of societies. Whether one examines cultures from a historical perspective or the many contemporary cultures of our present world, the student can become more sensitive to the differences and similarities of humankind through music.	
The learner should be aware that:	
1. Music a part of our everyday lives and lifetime experiences.	F4b
2. Music conveys messages and communicates ideas.	F4b
3. Music as a universal language crosses historical, geographical and political boundaries.	F4b
4. Music is a reflection of the nature of the culture, historical period or social context from which it comes.	F4b
5. Music of each culture has its own set of aesthetic values.	F4b
6. The values of a society are reflected in the musical forms created.	F4b
7. The values of a society determine the status of its creators and performers.	F4b
8. Musical knowledge enables the development of tolerance and respect for tradition and innovation.	F4b
9. Composers and performers are artists creating or expressing their ideas through music.	F4b

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		VISUAL ARTS EDUCATION, GRADES 4-6	
		I=INTRODUCTION OF SKILLS OR CONCEPTS **D=DEVELOPMENT OF SKILLS OR CONCEPTS** **R=REINFORCEMENT AND REFINEMENT**	
	I.	**HISTORICAL, CULTURAL AND SOCIAL CONTEXTS** To promote students' understanding and appreciation of artistic and cultural heritage and the role of art in contemporary society.	
	A.	**KNOWLEDGE**	
	1.	**Artists and Their World** Students Should Know That:	
R	a.	humans have always created images in the past and in the present.	F4b
D	b.	the visual arts have played a role in the development of cultures throughout the world.	F4b
D	c.	artists generate and express ideas according to their own experience and visions.	F4b
D	d.	artists have borrowed ideas and received inspiration from works of past artists.	F4b
D	e.	twentieth century artists have created art works that reflect the technology and mobility of a modern world.	F4b
I	f.	art reflects, records and influences history.	F4b
I	g.	artists react to trends and events within their environment.	F4b
I	h.	contemporary artists have an impact on the world.	F4b
I	i.	artists have individual styles which may change over time.	F4b
	2.	**The Cultural Heritage** Students Should Know That:	
D	a.	there are a variety of images and art work from contemporary, historic and prehistoric cultures.	F4b
D	b.	the visual arts have played a significant role in the development of cultures throughout the world.	F4b
D	c.	the needs of a culture group often determine the art works produced by the group.	F4b
D	d.	works of art are often created to celebrate or commemorate important events.	F4b
D	e.	artisans have often relied upon the natural environment as a source of ideas and materials.	F4b
D	f.	the traditions of creating handcrafted folk art objects have been transmitted from one generation to another.	F4b
D	g.	many traditionally handcrafted art forms are now mass-produced because of technological advancements.	F4b
I	h.	visual symbols communicate a universal language crossing historical, geographical and political boundaries.	F4b
	3.	**Contemporary Social Roles** Students Should Know That:	
D	a.	art works can be found in many places: museums, homes, public buildings, parks, films, and books etc.	F4b
D	b.	artistic people contribute to our society through careers as artists, in advertising, the media, product design, architectural construction, environmental design, landscaping and in numerous other professions.	F4b
D	c.	popular art forms (cartoons, films, record album covers, posters, etc.) attempt to appeal to a wide segment of society.	F4b
D	d.	the visual arts are interrelated to other areas of the school curriculum.	F4b
ID	e.	trademarks, brand names, color and shape coding, and other visual symbols are used to convey messages and communicated ideas.	F4b
ID	f.	architecture and environmental design are related to the lifestyles of people.	F4b
I	g.	art work reflects the time, technology and skills of a society	F4b

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	B.	**PERCEPTUAL, INTELLECTUAL AND PHYSICAL SKILLS**	
	1.	**Artists and Their World**	
		Students Should Be Able To:	
D	a.	recognize works of individual artists.	F4b
D	b.	classify art work according to subjects. (i.e. landscape, portrait, etc.)	F4b
D	c.	classify art works illustrating specific forms of expression (i.e., photography, graphics, painting, sculpture).	F4b
I	d.	describe the characteristics of a still life, a portrait, a self-portrait, a landscape, a cityscape.	F4b
I	e.	classify art works according to styles (expressionistic, realistic, surrealistic, etc.)	F4b
I	f.	recognize recurrent themes in art such as birth, marriage, death, victory, defeat, love, etc.	F4b
I	g.	distinguish the differences between art works that are whimsical, analytical, factual, spiritual, or allegorical when similar subject matter is portrayed.	F4b
	2.	**The Cultural Heritage**	
		Students Should Be Able To:	
D	a.	identify the purpose of an art object.	F4b
D	b.	identify some of the symbols that different cultures use to convey common themes.	F4b
I	c.	identify themes from selected works of art from various cultures or groups.	F4b
I	d.	identify the design sources used in the decoration of handcrafted art objects.	F4b
I	e.	recognize the similarities and differences between art works of various cultures.	F4b
I	f.	compare the media used in art works from different cultures.	F4b
	3.	**Contemporary Social Roles**	
		Students Should Be Able To:	
D	a.	recognize and describe the role of artists within a community.	F4b
D	b.	recognize and describe ways that people are involved in the visual arts within the community.	F4b
D	c.	identify symbols, trademarks, emblems, insignia and other visual motifs that are used to identify people's occupations, authority, or interests.	F4b
I	d.	identify uses of the visual arts in business and industry, including architectural and commercial design, advertising, television, film, and art careers associated with all of these forms.	F4b
I	e.	identify art works that are displayed in their community.	F4b
I	f.	recognize "sculptural" art forms created for functional purposes, such as bridges, playgrounds, drinking fountains.	F4b
I	g.	recognize the differences and similarities between popular art forms and fine art forms.	F4b
	C.	**AFFECTIVE EXPERIENCES: ATTITUDES AND VALUES**	
	1.	**Artists And Their World**	
D	a.	an awareness that artists generate and/or express ideas according to their own personalities and experiences.	F4b
D	b.	an appreciation of the aesthetic values of others.	F4b
D	c.	an emotional awareness and response to the sensory qualities in an artist's work.	F4b
D	d.	a sensitivity to the expressive qualities in an artist's work.	F4b
D	e.	a desire to communicate one's own aesthetic values when viewing an artist's work.	F4b
I	f.	the ability to appreciate a wide variety of different artist's works.	F4b
I	g.	the ability to define personal preferences in artists works, recognizing the influence of personal beliefs, attitudes and ideas.	F4b
	2.	**The Cultural Heritage**	
		Students Should Develop:	
D	a.	an awareness that all people, regardless of when they live, have emotional needs to visually express themselves.	F4b, G3b
D	b.	an appreciation of the art forms from different cultures.	F4b, G3b
I	c.	a sensitivity to the idea that cultural groups use a universal language to communicate beliefs and aesthetic values in visual form.	F4b, G4b

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I	d.	the ability to examine the value that people of different cultures place on tradition and innovation.	F4b, G4b
I	e.	the perception that there is a relationship between individual beliefs and a culture's values when defining personal preferences in art works.	F4b
	3.	**Contemporary Social Roles** Students Should Develop:	
R	a.	an awareness that learning about the visual arts is an integral part of the educational process.	F4b
D	b.	an awareness of how the values of society are expressed in the art forms created.	F4b
I	c.	sensitivity to the relationship between different cultural forms of artistic expression, such as; body painting, tattoos, masks, cave drawings, and graffiti.	F4b
I	d.	the ability to compare the qualities of objects that were produced for the same function.	F4b
I	e.	the ability to analyze the psychological appeal of advertising.	F4b
I	f.	the ability to recognize that the values of society determine the status of its artists and artisans.	F4b
I	g.	the perception that social trends influence our emotional reactions while observing art works.	F4b
II.		**CREATING ART AND THE ART PRODUCTION PROCESS** To provide expressive and creative opportunities for experiences with art tools and materials in a sequential process acknowledging the schematic development of the student.	
	A.	**KNOWLEDGE**	
	1.	**Vocabulary**	
D	a.	vocabulary related to technical processes.	F4b
D	b.	vocabulary related to medium/media	F4b
D	c.	vocabulary related to composition.	F4b
D	d.	vocabulary related to tools and equipment.	F4b
D	e.	vocabulary related to design elements and concepts.	F4b
D	f.	vocabulary related to forms of expression.	F4b
	2.	**Media and Materials**	
I	a.	painting	F4b
I	b.	drawing	F4b
I	c.	print making	F4b
I	d.	mixed media and fibers	F4b
I	e.	ceramics.	F4b
I	f.	sculpture	F4b
D	g.	computers and electronic media	F4b
I	h.	jewelry/metal work	F4b
I	i.	photography and video.	F4b
I	j.	lettering and calligraphy	F4b
	3.	**Conceptual Strategies**	
D	a.	composition is an orderly and planned arrangement of the elements and principles of art.	F4b
D	b.	the process artists use to make art by conceiving an idea, elaborating and refining, and finally giving form with art materials and mediums.	F4b
D	c.	the creating of art forms can stem from spontaneous expression based on prior knowledge and experience.	F4b
D	d.	the art medium can serve as a source of inspiration for creative expression.	F4b
D	e.	ideas can be developed from imagination, dreams and fantasies.	F4b
D	f.	ideas can be developed from viewing other artist's works, trends or events in our society, nature or man made environments.	F4b
D	g.	the use of natural and artificial light and its effect on composition.	F4b
I	h.	concepts and ideas can be developed by creative processes such as brainstorming, thumbnail sketches, etc.	F4b
I	i.	sequential planning may be necessary for the production of complex art forms.	F4b

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	B.	**PERCEPTUAL, INTELLECTUAL AND PHYSICAL SKILLS**	
	1.	**Imaginative and Creative Skills** Students Should Be Able To:	
D	a.	conceive, elaborate and refine new ideas.	F4b
D	b.	develop ideas from imagination and other visual inspiration.	F4b
D	c.	be aware of the differences between looking at something and truly seeing it.	F4b
D	d.	commit time and effort to fully develop an idea.	F4b
I	e.	use a variety of processes to stimulate creative ideas, i.e., creative problem solving techniques.	F4b
I	f.	utilize current events and the environment for inspiration.	F4b
I	g.	manipulate the media, format, light and subject to convey varied personal interpretations.	F4b
I	h.	defer judgment as a way to be receptive to a new idea.	F4b
I	i.	recognize and articulate the interrelationships between the elements and principals of design.	F4b
I	j.	apply the elements and principles of design in creative and unique ways to solve or resolve visual problems.	F4b
	2.	**Use and Care of Equipment** Students Should Be Able To:	
D	a.	clean and care for basic art tools and materials.	D3a, E1c, F4b
D	b.	demonstrate the ability to use a variety of basic art tools in a safe and appropriate manner.	C2a, F4b
I	c.	demonstrate the ability to safely use a variety of general hand tools: i.e., pliers, file, wire cutter.	C2a, F5a
I	d.	demonstrate skill with sharpened tools: i.e., linoleum cutter, stencil knife, X-acto, matte knife.	F5a
	3.	**Application of Technical Skills** Students Should Be Able To:	
	a.	demonstrate painting skills	
D		1. using and mixing colors: primary, secondary, warm/cool, light/dark, etc.	F4b
D		2. using a variety of tools, i.e., sponges, brushes	F4b
D		3. using a variety of media, i.e., finger paint, tempera, watercolor	F4b
D		4. developing painting techniques, i.e., wet brush, dry brush.	F4b
I		5. varying color applications, i.e., tint, tone, shade	F4b
I		6. using advanced color schemes, i.e., complementary, monochromatic, analogous, neutrals.	F4b
I		7. using framing practices, i.e., matting and mounting	F4b
	b.	demonstrate drawing skills by:	
D		1. using basic shapes and apparent form in an art work	F4b
D		2. making a variety of shapes, "abstract and representational."	F4b
D		3. drawing from direct observation	F4b
D		4. composing art work using a variety of lines, i.e., thick, thin, broken, curved, slanted, etc.	F4b
D		5. creating tactile and apparent textures.	F4b
D		6. the use of spatial relationships, i.e., depth, areas, size relationship, overlap, foreground, middle-ground, background.	F4b
D		7. utilizing both positive and negative space in composition.	F4b
D		8. creating patterns with lines, shapes and textures	F4b
D		9. exhibiting understanding of physical proportions	F4b
I		10. drawing in one- and two-point perspectives	F4b
I		11. using techniques for enlargement and reduction (grid system)	F4b
I		12. creating symmetrically/asymmetrically balanced composition	F4b
I		13. using concepts of composition, i.e., center of interest, point of view, eye path.	F4b
I		14. creating contour and gesture drawings	F4b
I		15. using techniques as varied line, texture, and shading to show implied light and	F4b

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	value, i.e. cross hatching or stippling.	
	c. demonstrate printmaking skills by:	
D	1. learning basic relief print making techniques	F4b
D	2. learning incised printing processes: styrofoam or found objects.	F4b
I	3. using stencil processes	F4b
I	4. developing multiple color print making processes involving registration techniques, i.e., etching, lithography, silkscreen.	F4b
	d. demonstrate skills in mixed media and fibers by:	
D	1. creating 3-D objects from paper, i.e., folding tearing	F4b
D	2. composing an art product using mixed media or found objects.	F4b
D	3. creating collages, assemblages, handmade paper, weavings	F4b
I	4. using basic stitchery procedures, i.e., running stitch, cross stitch, couching	F4b
I	5. doing simple macramé knots	F4b
I	6. using advanced stitchery, i.e., satin, chain, French knot.	F4b
I	7. weaving on a simple loom	F4b
I	8. using basic batik and tie-die methods	F4b
D	9. using basic basketry techniques (wrapping)	F4b
	e. demonstrate ceramics skills by:	
D	1. the pinch/pull method of construction	F4b
D	2. the coil/slab method of construction	F4b
I	3. using a potter's wheel, modeling and slip casting	F4b
	f. demonstrate sculptural skills by:	
D	1. assembling rigid materials by stacking, hammering gluing, i.e., wood, cardboard, styrofoam	F4b
I	2. creating mobiles, stabiles and other contemporary forms of sculptural expression, i.e. environmental, wrapping, etc.	F4b
I	3. creating relief sculpture, i.e., sand casting, curved clay form	F4b
I	4. making an armature out of wire, wood, paper	F4b
	g. demonstrate skills using computers and electronic media by:	
D	1. recognizing that art work can be created using computers and other electronic media.	F4b, F5a
I	2. reproducing and manipulating images using electronic media	F4b, f5a
	h. demonstrate skill in jewelry/metalwork by:	
D	1. stringing beads, seeds, or found objects	F4b
D	2. making jewelry with dough, papiér maché or clay	F4b
I	3. bending and twisting wire into wearable art	F4b
I	4. using repoussé techniques in flat metal	F4b
	i. demonstrate photographic/video skills by:	
D	1. using simple photography techniques, i.e., sun prints, drawing on slides, pinhole cameras, experimental	F4b, F5a
D	2. using simple animation, i.e. flip book	F4b
I	3. using a camera to frame and record an image	F4b, F5a
I	4. developing film- various types	F4b, F5a
I	5. utilizing video equipment to create an art form	F4b, F5a
I	6. using splicing and editing equipment and techniques	F4b, F5a
	j. demonstrate lettering/calligraphy skills by:	
D	1. drawing and cutting uniform letters	F4b
D	2. using various calligraphy styles, i.e., Gothic, Roman, Chancery cursive, Text	F4b
I	3. developing creative lettering designs	F4b
I	4. utilizing advanced techniques of lettering, i.e., decorative, illuminated, etc.	F4b
	C. AFFECTIVE EXPERIENCE: ATTITUDES AND VALUES Students Should:	
R	1. develop an inquisitive mind	no match
D	2. demonstrate confidence and satisfaction in his/her achievements	G2b, H1
D	3. value his/her capabilities and creative potential	G2b

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D	4.	develop a respect and appreciation for the ideas and creations of others	G3a
D	5.	increase awareness of the creative process and multitude of choices available	no match
D	6.	develop an awareness of the barriers that inhibit or prohibit creative thought	no match
D	7.	develop the desire to complete a project as specified	D1b
D	8.	demonstrate a willingness to improve art skills	F4b
I	9.	consider the cause and effect of media/material choices	F4b
I	10.	develop a respect for the aesthetic dimensions of art	F4b
III.		**ART ANALYSIS/CRITICISM** Through talking and writing about art in structure ways that are developmentally appropriate for the student, the learner will gain the ability to observe, describe, analyze, interpret, and make critical judgments about the form and content of art.	
	A.	**KNOWLEDGE** Students Should Know:	
D	**1.**	**Vocabulary:** Students should learn and use words whose meanings relate to or describe a process, characteristics or traits intrinsic to works of art	F1a, F4b
D	**2.**	**Strategies:** Students should gather information in order to recognize, identify and classify works of art.	F2a, F4b
	B.	**PERCEPTUAL, INTELLECTUAL AND PHYSICAL SKILLS** Students Should Know How To:	
	1.	**Describe A Work of Art** Students should be able to:	
D	a.	identify objects represented in a work of art	F4b
D	b.	identify parts, forms, shapes, colors, lines, textures in a work of art.	F4b
I	c.	identify symbolism, periods, artist's intent, style, cultures.	F4b
	2.	**Analyze A Work of Art** Students should be able to:	
D	a.	use vocabulary to identify or describe an artwork	F1a, F4b
D	b.	discern how and where the formal elements are used by the artist	F4b
I	c.	identify style, periods, media, cultures in works of art.	F4b
	C.	**AFFECTIVE EXPERIENCE: ATTITUDES AND VALUES**	
	1.	**Interpretation of an Art Work** Students should be able to:	
D	a.	discuss visual perception about works of art	F4b
D	b.	discuss feelings expressed in a work of art	F4b
D	c.	discuss the artist's use of media, subject matter or theme in expressing intent	F4b
I	d.	interpret the use of symbols in works of art	F4b
I	e.	determine the presence of meaning in a work of art.	F4b
	2.	**Judgment** Students should be able to:	
D	a.	look at works of art and discern how it makes the viewer feel and why	F4b
I	b.	combine knowledge and skills to evaluate works of art	F2a, F4b
I	c.	compare and contrasts the relationship of social and cultural influences on works of art	F4b
I	d.	consider the importance of works of art to society, careers and history	F4b
I	e.	explain the work of art using analytical description, being aware of fallacies and prejudices that people bring to a work of art.	F2a, F4b
I	f.	determine artistic merit of any work based on art rules, historical influences and personal experience.	F2a, F4b
IV.		**AESTHETICS: A PHILOSOPHICAL BASIS FOR ART** An understanding of the nature, meaning and value of art is an important component of art education. The discussion of these philosophical questions sets art apart from the other	

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		areas of the curriculum.	
	A.	**KNOWLEDGE: DEFINING PROPERTIES OF AESTHETICS** Students should know that:	
D	1.	aesthetics is a branch of philosophy which deals with questions about the nature, meaning and value of art.	F4b
D	2.	the ability to perceive and respond to art is unique to human beings	F4b
D	3.	aesthetics is an attempt to explain the reasons why we find certain experiences and objects perceptually interesting and attractive.	F4b
D	4.	one's concept of beauty may be different from another individual's concept of beauty.	F4b
D	5.	concepts of beauty may differ from culture to culture	F4b
I	6.	our aesthetic response is dependent upon the quality of our sensory perceptions	F4b
I	7.	our aesthetic is an attempt to articulate why some experiences and objects are valued for their own sake rather than as means to other ends.	F4b
I	8.	aesthetics is an attempt to articulate why some experiences and objects are valued for their own sake rather than as means to other ends.	F4b
	B.	**PERCEPTUAL, INTELLECTUAL AND PHYSICAL SKILLS** Students should develop the ability to:	
D	1.	observe and recall detail related to artistic experience	F4b
D	2.	make discriminations of sensory qualities, i.e., variations in patterns, surface, color form, etc.	F4b
D	3.	be receptive to new ideas	F4b
D	4.	adapt to new situations	F4b
D	5.	speculate	F4b
I	6.	analyze the parts for a better perception of the whole	F2a, F4b
I	7.	perceive events and objects holistically	F4b
I	8.	communicate using appropriate vocabulary for responding to the aesthetic qualities of a work of art.	F4b
I	9.	classify, sequence, compare and contrast aesthetic qualities	F4b
I	10.	distinguish descriptive words from evaluative words	F4b
I	11.	distinguish opinions from logical arguments, and objective statements from subjective statements	F2a, F4b
I	12.	discuss and consider the relationship of the values of the culture to the values of the artist and the individual	F4b
	C.	**AFFECTIVE EXPERIENCE: ATTITUDES AND VALUES**	
D	1.	be curious and develop a sense of wonder	no match
D	2.	value questions as well as answers	F4b
D	3.	become more open to and aware of sensory qualities in works of art or in natural events	F4b
D	4.	develop an awareness of the use of metaphors and symbols that relate to universal human themes	F4b
D	5.	become more discriminating of and less satisfied with stereotypical images	F4b
D	6.	tolerate ambiguity and uncertainty	F4b
I	7.	become aware of assumptions and their effect on literal and visual phenomena	F4b
I	8.	value the presence of many possibilities and options	F4b
I	9.	value differences in viewpoints and reflective disagreement	F4b
I	10.	seek the basis or experiential reasons for their attitudes and beliefs	F4b
ESSENTIAL GOALS AND OBJECTIVES FOR WRITING			
		OBJECTIVES FOR USING THE WRITING PROCESS **PRE-WRITING** Objectives: During the pre-writing part of the writing process, the student will:	
		read	F3b

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draw	F4b
speak	F1a
listen	F1a
dramatize	F4b
brainstorm	F4
interview	F1a, F4
recall	F4
research	F4
classify	F4
imagine and visualize	F3c
DRAFTING	
Objectives: During the drafting part of the process, students will:	
choose a topic	F3c
use invented spellings	F3c
record experiences, feelings, and ideas on paper	F3c
restart	F3c
add or delete ideas	F3c
create images	F3c
connect ideas	F3c
consider audience and format	F3c
share writing with others	F3c
continue reading and researching	F3c
REVISING	
Objectives: When revising, the student will	
add and delete information	F3c
seek help	F3c
refine purpose	F3c
share writing orally with peers	F1a, F3c
consider arrangement of sentences and paragraphs	F3c
select precise language	F3c
use a personal dictionary or thesaurus	F3c
evaluate what was written	F3c
project audience reaction	F3c
PROOFREADING	
Objectives: When proofreading, the student will:	
correct sentence fragments and run-on sentences	F3c
correct sentence syntax errors	F3c
correct errors in usage, such as lack of subject-verb agreement, incorrect verb tense and so on	F3c
correct punctuation and capitalization	F3c
correct illegible handwriting	F3c
correct format problems, such as irregular margins, missing indentations and so on	F3c
identify and correct misspelled words	F3c
PUBLISHING	
Objectives: After proofreading, a student will:	
prepare corrected copy for publication	F3c
add illustrations, if possible	F3c
share writing with appropriate audiences	F3c
display writing in the classroom or school building	F3c
seek ways to share writing with parents	F3c
enjoy the published writing of classmates	F3c
FOREIGN LANGUAGE EDUCATION, GRADES K-12	
PHASE I: At the earliest levels, or approximately the first 3-4 years of elementary	F4

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foreign language study, students will be provided with opportunities to develop listening and speaking skills.	
Students Learn To:	
Understand and use basic greetings and leave takings.	F4
Understand and orally recite cultural songs, rhymes and sayings.	F4
Using memorized material, ask and respond to basic questions dealing with personal information (name, age, family, likes/dislikes).	F4
Respond to visual cues dealing with colors, shapes, health, weather, time, family members, body parts, clothing, animals.	F4
Recite sequences (numbers, days, months, seasons, ABC's).	F4
Answer information questions about familiar topics.	F4
Using memorized material, ask permission, express confusion or lack of understanding, make excuses.	F4
Towards the end of this phase, students may begin reading of familiar material in the second language. As with reading, writing is limited and relies on the use of familiar material. Cultural awareness is accomplished through songs, stories, games and other classroom activities.	
PHASE II: During this phase, which may encompass three years at the upper elementary grades or two years at the junior high, emphasis remains on developing listening and speaking skills, but time spent on reading and writing in the foreign language increases. Students begin to develop an awareness of grammatical structures, but formal grammar instruction is kept to a minimum.	F4
During This Phase, Students Will:	
Give more extended personal information (such as date of birth) and personal information about others.	F4
Respond to visual cues dealing with school, home, city/community, sports, action words, foods.	F4
Make simple inquiries orally to seek information, meet needs or initiate a conversation.	F4
Begin to create with the language to express personal thoughts or needs on simple, familiar topics.	F4
Learn sounds/symbol correspondences of foreign language.	F4
Read stories and other texts for (cultural) information.	F4
Write simple sentences in response to structured questions, to describe objects or people and for self-expression.	F4
PHASE III: This phase follows an articulated K-6 elementary program. Taught in the junior high, students are expected to develop proficiency in each of the four language skills.	F4
During This Phase, Students Will:	
Learn about the language (grammar) and culture entirely through the medium of the foreign language.	F4
Learn to address individuals in the correct social register.	F4
Recount a sequence of events in the present and past tenses, orally and in writing.	F4
Read and listen to authentic "texts" for information about history, geography and other aspects of the target culture(s).	F4
Increase the ability to create with the language to express ideas and needs, orally and in writing.	F4
READING EDUCATION--THIRD GRADE	
I. CONSTRUCTING MEANING	
A. Interactive Reading	
1. Ability to construct meaning under a variety of different reader, text, and contextual conditions.	F3b
a. Ability to identify and use text factors (i.e., text types, structures, and features) as an aid	F3b

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in constructing meaning	
b. Ability to select, employ, monitor, and regulate appropriate strategies under varying reader, text, contextual conditions	F3b
c. Ability to integrate textual information within sentences, within a whole text, with information outside the text and with information from the reader's knowledge.	F3b
B. Skills for Constructing Meaning	
1. Ability to use a variety of strategies to recognize words, e.g., predictions context clues, phonics, and structural analysis	F3b
2. Ability to use contextual clues to aid vocabulary and concept development	F3b
3. Ability to recall/recognize text based information	F3b
4. Ability to integrate information with a text	F3b
5. Ability to integrate information from more than one text	F3b
6. Ability to evaluate and react critically to what has been read	F3b
7. Ability to construct a statement of a central purpose or theme	F3b
8. Ability to identify major ideas/events and supporting information within and across texts	F3b
II. KNOWLEDGE ABOUT READING	
A. Goals and Purposes	
1. Knowing that the goal of reading is constructing meaning	F3b
a. Knowing that reading skills are tools for achieving the goal of constructing meaning	F3b
2. Knowing that reading is communication	F3b
a. Knowing that what is read was written by someone who was trying to say something	F3b
b. Knowing that authors have different intentions and knowing what they are, e.g., entertain, persuade, inform	F3b
c. Knowing that the reader's adopted purpose(s) influence(s) comprehension	F3b
d. Knowing that social context influences reading, e.g., peers, home, subculture	F3b
B. Reader--Text--Contextual Factors That Influence Reading	
1. Knowing about reader characteristics, e.g., prior knowledge, purpose, interest, attitudes, word recognition and comprehension strategies.	F3b
2. Knowing about text factors	F3b
a. Knowing about different types of texts, e.g., narrative and informational	F3b
b. Knowing about different text structures, e.g., elements of story structure, patterns of organization	F3b
c. Knowing about different text features, e.g., illustrations, connecting words, figurative language	F3b
3. Knowing about CONTEXTUAL FACTORS	F3b
a. Knowing about the different setting in which reading takes place in and out of school	F3b
b. Knowing about different reading tasks, e.g., workbook assignments, discussion questions	F3b
4. Knowing that constructing meaning involves an interaction among READER, TEXT, and CONTEXTUAL factors	F3b
C. Strategies	
1. Knowing about a variety of strategies for identifying words, e.g., predictions, context clues, phonics, and structural analysis	F3b
2. Knowing about a variety of strategies to aid comprehension, e.g., summarizing, self-questioning, predicting	F3b
3. Knowing when and why to use certain word recognition and comprehension strategies	F3b
4. Knowing that it is important to monitor and regulate comprehension	F3b
5. Knowing that strategies are employed flexibly, i.e., they are differentiated by reader, text, contextual factors	F3b
III. ATTITUDES AND SELF-PERCEPTIONS	
A. Developing a positive attitude toward reading	no match
B. Choosing to read often in their free time both at home and in school	no match

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C.	Choosing to read a variety of materials for a variety of purposes	F3b
D.	Developing an understanding of their competencies and limitations in reading	G2b, G2c
E.	Developing a positive attitude (image) toward themselves as readers	G2
	MATHEMATICS EDUCATION, GRADES 4-6	
	WHOLE NUMBERS AND NUMERATION	
I.	**NUMERATION**	
	To read, write, compare, order and round numbers.	F3a
A.	**Conceptualization**	
2.	To read numbers and recognize place value.	F3a
B.	**Computation**	
1.	To compare and order numbers.	F3a
2.	To regroup numbers using place value, as needed for computation algorithms	F3a
C.	**Estimation**	
1.	To round numbers.	F3a
II.	**ADDITION**	
	To add whole numbers using manipulative models and computational algorithms	F3a
B.	**Computation**	
3.	To add three or more numbers.	F3a
C.	**Mental Arithmetic**	
2.	To add two two-digit numbers mentally.	F3a
D.	**Estimation**	
	To estimate the sum of two ,three, or more numbers.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving addition.	F3a
F.	**Calculators**	
1.	To add any numbers in column or horizontal form.	F3a, F5a
III.	**SUBTRACTION**	
	To subtract whole numbers using manipulative models and computational algorithms.	F3a
A.	**Conceptualization**	
3.	To relate subtraction to addition.	F3a
5.	To use models to show the subtraction algorithm, identifying results of regrouping.	F3a
B.	**Computation**	
2.	To find differences of two and three-digit numbers involving regrouping.	F3a
C.	**Mental Arithmetic**	
2.	To find differences of two-digit numbers mentally.	F3a
D.	**Estimation**	
1.	To estimate to find approximate differences.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving subtraction.	F3a
IV.	**MULTIPLICATION**	
	To multiply numbers using manipulative models and computational algorithms.	F3a
B.	**Mental Arithmetic**	
3.	To multiply one-digit and two-digit numbers and find other appropriate special products mentally.	F3a
C.	**Estimation**	
1.	To use multiples of 10 and 100 to estimate products	F3a
D.	**Computation**	
1.	To multiply two numbers up to a two-digit by a three-digit number.	F3a
E.	**Problem Solving Applications**	
1.	To solve problems involving multiplication.	F3a

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		NCEO CODE
F.	**Calculators**	
1.	To multiply any numbers.	F3a
V.	**DIVISION**	
	To divide whole numbers using manipulative models and computational algorithms.	F3a
A.	**Conceptualization**	
2.	To relate division to multiplication.	F3a
4.	To interpret the remainder.	F3a
5.	To relate models to the division algorithm	F3a
B.	**Mental Arithmetic**	
1.	To divide multiples of 10, 100, and 1000 getting quotients that are multiples of 10, 100, or 1000.	F3a
C.	**Estimation**	
1.	To use multiples of 10, 100, and 1000 to determine the number of places in the quotient.	F3a
2.	To determine the first digit and its place value in the quotient.	F3a
D.	**Computation**	
1.	To find the quotient and remainder for one and two-digit divisors (up to 30, multiples of 10, 40 through 90) with up to four-digit dividends.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving division.	F3a
F.	**Calculators**	
1.	To divide any numbers.	F3a, F5a
VI.	**NUMBER PROPERTIES**	
	To recognize and use properties of whole numbers.	F3a
A.	**Conceptualization**	
1.	To demonstrate and use the meaning of:	
	a. odd and even	F3a
	b. multiple and common multiple	F3a
	c. factor and common factor,	F3a
	d. prime number and prime factorization	F3a
B.	**Computation**	
1.	To determine when sums, differences, products, and quotients are even or odd.	F3a
2.	To find multiples of numbers less than 20.	F3a
3.	To find factors of numbers less than 200.	F3a
4.	To find common factors of two numbers, each less than 50.	F3a
5.	To find common multiples of two numbers, each less than 16.	F3a
6.	To determine prime numbers less than 100.	F3a
7.	To find the prime factorization of numbers 100 or less.	F3a
	FRACTIONS, DECIMALS, RATIO AND PERCENT	
	FRACTIONS (Note: Fractions include mixed numbers and whole numbers where appropriate)	
I.	**MEANING**	
	To demonstrate and use the meaning of fractions.	F3a
A.	**Conceptualization**	
1.	To relate fractions to concrete models.	F3a
2.	To relate fractions to division using the necessary vocabulary.	F3a
B.	**Estimation**	
1.	To estimate fractions and sizes of regions using easily recognized fractions.	F3a
C.	**Problem Solving And Applications**	
1.	To solve problems involving the meaning of fractions.	F3a
II.	**EQUIVALENT FRACTIONS**	
	To find equivalent fractions using concrete models and generalizations for equivalent fractions	F3a

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		NCEO CODE
A.	**Conceptualization**	
1.	To relate concrete models and equivalent fractions.	F3a
B.	**Mental Arithmetic**	
1.	To find equivalent fractions for easily recognized fractions.	F3a
C.	**Estimation**	
1.	To estimate fractions using easily recognized fractions.	F3a
D.	**Computation**	
1.	To find equivalent fractions and mixed number/fraction equivalents.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems with equivalent fractions	F3a
III.	**COMPARE/ORDER**	
	To compare and order fractions.	F3a
A.	**Conceptualization**	
1.	To compare and order using models and appropriate fractions.	F3a
B.	**Estimation**	
1.	To estimate fractions using easily recognized fractions.	F3a
C.	**Computation**	
1.	To compare and order fractions.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving comparing or ordering fractions.	F3a
IV.	**ADD/SUBTRACT**	
	To add and subtract fractions including combinations with whole numbers.	F3a
A.	**Conceptualization**	
1.	To relate the addition and subtraction operations to models and to each other.	F3a
B.	**Mental Arithmetic**	
1.	To find sums or differences of like fractions mentally.	F3a
C.	**Estimation**	
1.	To estimate sums and differences.	F3a
D.	**Computation**	
1.	To find sums or differences.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving addition and subtraction with fractions.	F3a
V.	**MULTIPLY/DIVIDE**	
	To multiply and divide fractions including combinations with whole numbers.	F3a
A.	**Conceptualization**	
1.	To relate the multiplication and division operations to models and to each other.	F3a
B.	**Mental Arithmetic**	
1.	To find a fractional part of appropriate whole numbers mentally.	F3a
C.	**Estimation**	
1.	To estimate products and quotients.	F3a
D.	**Computation**	
1.	To find products and quotients.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving multiplication and division with fractions.	F3a
	DECIMALS	
I.	**MEANING**	
	To demonstrate and use the meaning of decimals.	F3a
A.	**Conceptualization**	
1.	To relate decimals to models.	F3a
2.	To solve problems involving the meaning of decimals.	F3a
B.	**Estimation**	

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		NCEO CODE
1.	To estimate decimals using whole numbers and models	F3a
2.	To round decimals to a given place.	F3a
C.	**Problem Solving And Applications**	
1.	To solve problems involving the meaning of decimals.	F3a
II.	**EQUIVALENT DECIMALS**	
	To find equivalent decimals using models and generalizations for equivalent decimals.	F3a
A.	**Conceptualization**	
1.	To identify equivalent decimals using models and generalizations for equivalent decimals.	F3a
B.	**Estimation**	
1.	To use equivalent decimals to make estimates using models or using decimals.	F3a
C.	**Problem Solving And Applications**	
1.	To solve problems with equivalent decimals.	F3a
D.	**Calculators**	
1.	To interpret calculator displays for decimal equivalents.	F3a, F5a
III.	**COMPARE/ORDER**	
	To compare and order decimals.	F3a
A.	**Conceptualization**	
1.	To compare or order decimals using concrete models, word names, or decimal symbols.	F3a
B.	**Estimation**	
1.	To estimate decimals using easily recognized fractions.	F3a
C.	**Problem Solving And Applications**	
1.	To solve problems involving comparing or ordering of decimals.	F3a
IV.	**ADD/SUBTRACT**	
	To add and subtract decimals.	F3a
A.	**Conceptualization**	
1.	To relate the addition and subtraction operations to models and to each other.	F3a
B.	**Mental Arithmetic**	
1.	To add and subtract selected decimals mentally.	F3a
C.	**Estimation**	
1.	To estimate sums and differences.	F3a
D.	**Computation**	
1.	To add and subtract decimals.	F3a
E.	**Problem Solving And Applications**	
1.	To solve problems involving addition and subtraction of decimals.	F3a
F.	**Calculators**	
1.	To add and subtract decimals.	F3a, F5a
V.	**MULTIPLY/DIVIDE**	
	To multiply and divide decimals.	F3a
A.	**Conceptualization**	
1.	To relate the multiplication and division operations to models and to each other.	F3a
2.	To relate equivalent expressions for the operations, including multiplication of a whole number and a decimal.	F3a
B.	**Mental Arithmetic**	
1.	To multiply and divide with decimals and powers of ten.	F3a
C.	**Estimation**	
1.	To estimate products and quotients.	F3a
D.	**Computation**	
1.	To multiply and divide decimals up to thousandths.	F3a
E.	**Calculators**	
1.	To find products and quotients.	F3a, F5a
F.	**Problem Solving And Applications**	

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1. To solve problems involving multiplication and division of decimals.	F3a
RATIO AND PROPORTION	
I. RATIO	
To use ratio in practical situations.	F3a
A. Conceptualization	
1. To determine ratios from models that are part-to-part, part-to-whole, or rates and recognize verbal expressions for ratio.	F3a
B. Problem Solving And Applications	
1. To solve problems involving ratios; difficult computation.	F3a
PERCENT	
I. MEANING	
To demonstrate the meaning of percent as a ratio whose second terms is 100.	F3a
A. Conceptualization.	
1. To use models to represent percents.	F3a
B. Problem Solving And Applications	
1. To use the meaning of percent in solving practical problems.	F3a
II. PERCENT, FRACTION, DECIMAL EQUIVALENTS	
To express ratios as percents, fractions, or decimals and to relate each form to the other two.	F3a
A. Conceptualization	
1. To recognize equivalent expressions involving selected fractions, decimals and percents using models or easily recognized fractions.	F3a
D. Calculators	
1. To express any ratio as a percent or decimal.	F3a, F5a
E. Problem Solving And Applications	
1. To solve problems using fraction, percent and decimal equivalents.	F3a
III USING PERCENT	
To find a percent of a number.	F3a
A. Conceptualization	
1. To recognize and use the meaning of percent in finding either the part (percentage) or the whole (base) when the percent (rate) is given.	F3a
MEASUREMENT	
I. LENGTH AREA, VOLUME, ANGLES	
To measure length, area, volume and angles.	F3a
A. Conceptualization	
1. To identify and describe the concept of length and the relative sizes of the standard units.	F3a
2. To identify and describe concepts of area, perimeter, volume and angle measure.	F3a
3. To distinguish among situations which call for measuring length, area or volume.	F3a
5. To determine the length of an object or a line segment with an appropriate unit and a standard measuring instrument using hands-on activities.	F3a
6. To measure area (square units) an d volume (cubic units) by the process of covering, filling, and counting and to recognize the relative size of standard units.	F3a
8. To read various scales such as rulers and protractors.	F3a
B. Estimation	
1. To estimate the length of a familiar object or drawing.	F3a
2. To estimate the area or volume of a familiar object or drawing.	F3a
C. Problem Solving And Applications	
1. To determine the perimeter of an object or of a polygon.	F3a
2. To use the formula, A=LXW, to find the area of a rectangular object or drawing.	F3a
3. To determine the circumference of a circle, the area of a geometric shape, and the volume of a cylinder or rectangular prism.	F3a

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II.	**CAPACITY, MASS, TIME, TEMPERATURE**	
	To measure and use liquid capacity, mass (weight), time, temperature, monetary value and relationships of the basic metric units.	F3a
A.	**Conceptualization**	
1.	To recognize and use the concepts of mass, liquid capacity, time and temperature, including standard units, relative sizes, comparisons and their abbreviations and symbols.	F3a
2.	To tell time to the nearest five minutes.	F3a
3.	To measure liquid capacity and mass (weight) using appropriate standard units and measuring instruments.	F3a
4.	To recognize and use U.S. coins and bills, $5 and less.	F3a
5.	To read various scales, such as a thermometer.	F3a
B.	**Estimation**	
1.	To make estimations involving temperature, time and money.	F3a
2.	To make estimations of the capacity of various common containers in terms of metric units.	F3a
C.	**Problem Solving And Applications**	
1.	To solve one-step verbal arithmetic problems, posed within a measurement context, including elapsed time and money.	F3a
2.	To use a table of equivalents to solve simple problems involving the conversion of units within a system of measurement.	F3a
3.	to solve multi-step verbal problems posed within a measurement context.	F3a
	GEOMETRY	
I.	**SHAPE**	
	To recognize and use the shapes in one, two and three dimensions.	F3a
A.	**Conceptualization**	
1.	To identify and illustrate appropriate geometric shapes.	F3a
B.	**Problem Solving**	
1.	To solve problems involving appropriate geometric shapes.	F3a
II.	**SHAPE PROPERTIES**	
	To recognize and use properties of one, two and three dimensional shapes such as equal sides, equal angles and symmetry.	F3a
A.	**Conceptualization.**	
1.	To identify or illustrate properties of appropriate geometric shapes.	F3a
B.	**Problem Solving And Applications**	
1.	To solve problems using properties of appropriate geometric shapes.	F3a
III.	**RELATIONS AMONG GEOMETRIC OBJECTS**	
	To recognize and use the relations of congruence, similarity, intersection, parallelism and perpendicularity for appropriate figures in one, two and three dimensions.	F3a
A.	**Conceptualization**	
1.	To identify and illustrate appropriate relations among figures.	F3a
B.	**Problem Solving And Applications**	
1.	To solve problems using the appropriate relations among shapes.	F3a
IV.	**POSITION**	
	To recognize and use informal and formal coordinate systems on lines and planes to specify locations and distances.	F3a
A.	**Conceptualization**	
1.	To identify and produce points satisfying given conditions.	F3a
B.	**Estimation**	
1.	To estimate distances and positions in the coordinate plane.	F3a
C.	**Problem Solving And Applications**	
1.	To solve problems using position concepts and notation.	F3a

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V.	**TRANSFORMATIONS**	
	To recognize and use the transformations of reflection in a line (flip), translation (slide), rotation about a point (turn), and size change (enlargement and reduction).	F3a
A.	**Conceptualization**	
1.	To recognize and produce appropriate transformations.	F3a
VI.	**VISUALIZING-SKETCHING-CONSTRUCTING**	
	To visualize, sketch and construct geometric objects.	F3a
A.	**Conceptualization**	
1.	To visualize, sketch and construct geometric shapes or relationships.	F3a
B.	**Problem Solving And Applications**	
1.	To solve problems requiring visualizing sketching or constructing geometric shapes or relationships.	F3a
	STATISTICS AND PROBABILITY	
I.	**TABLES**	
	To construct, read and interpret tables.	F3a
A.	**Conceptualization**	
1.	To read tables and identify existing patterns in tables.	F3a
B.	**Computation**	
1.	To construct tables from data.	F3a
2.	To record data in existing tables.	F3a
C.	**Problem Solving And Applications**	
1.	To use tables for comparisons.	F3a
D.	**Calculators And Computer**	
1.	To generate tables using calculators and computers.	F3a, F5a
II.	**GRAPHS**	
	To construct, read and interpret graphs.	F3a
A.	**Conceptualization**	
1.	To read graphs	F3a
	a. Picture graphs, Bar graphs	F3a
	b. Line graphs, Line plots	F3a
B.	**Estimation**	
1.	To make comparisons among graphs.	F3a
2.	To interpolate on graphs.	F3a
C.	**Computation**	
1.	To determine appropriate scales for graphs.	F3a
2.	To construct graphs.	F3a
D.	**Problem Solving And Applications**	
2.	To determine patterns, see trends, predict outcomes and make wise choices using graphs.	F3a
III.	**DESCRIPTIVE STATISTICS**	
	To read, interpret, determine and use descriptive statistics.	F3a
A.	**Conceptualization**	
1.	To define terms:	
	a. mean, median, range, frequency	F3a
B.	**Computation**	
1.	To order data in ascending or descending order.	F3a
2.	To determine mean, median and range.	F3a
C.	**Problem Solving And Applications**	
1.	To determine patterns, see trends, predict outcomes and make wise choices using descriptive statistics.	F3a

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IV.	**PROBABILITY**	
	To read, interpret, determine and use probabilities.	F3a
A.	**Conceptualization**	
1.	To compare the likelihood of simple events.	F3a
B.	**Mental Arithmetic**	
1.	To determine probabilities of simple events.	F3a
D.	**Problem Solving And Applications**	
1.	To use probability devices to simulate real world events.	F3a
	ALGEBRAIC IDEAS: VARIABLES	
I.	**EXPRESSIONS**	
	To understand and use expressions containing variables.	F3a
A.	**Conceptualization**	
1.	To recognize and use the concept of variable in expressions.	F3a
B.	**Computation**	
1.	To evaluate expressions.	F3a
C.	**Estimation**	
1.	To estimate values of expressions.	F3a
II.	**VERBAL, SYMBOL, MODEL RELATIONS**	
	To use variables in translating among verbal expressions, symbols, and situations that are pictorial or practical.	F3a
A.	**Conceptualization**	
1.	To recognize physical or pictorial models for relations and operations.	F3a
B.	**Problem Solving And Applications**	
1.	To solve problems represented physically, pictorially, symbolically or verbally.	F3a
III.	**OPEN SENTENCES**	
	To use variables to write and solve open sentences.	F3a
A.	**Conceptualization**	
1.	To recognize and use the concept of variable in open sentences.	F3a
B.	**Computation**	
1.	To find solutions to open sentences.	F3a
C.	**Problem Solving And Applications**	
1.	To find solutions to problems stated verbally.	F3a
	REAL NUMBERS AND PROPERTIES	
I.	**DISTRIBUTIVE PROPERTY**	
	To recognize and apply the distributive property.	F3a
A.	**Conceptualization**	
1.	To recognize equivalent manipulative or pictorial representations of the distributive property.	F3a
B.	**Mental Arithmetic**	
1.	To use the distributive property for mental arithmetic short cuts.	F3a
C.	**Problem Solving And Applications**	
1.	To apply the distributive property to problems solving situations.	F3a
II.	**INTEGERS**	
	To recognize, use and compute with integers.	F3a
A.	**Conceptualize**	
1.	To interpret and compare integers in familiar situations.	F3a
C.	**Problem Solving And Applications**	
1.	To use integers in everyday situations.	F3a
III.	**EXPONENTS, POWERS AND ROOTS**	
	To recognize and use concepts of exponents, powers and roots.	F3a

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A.	**Conceptualization**	
1.	To recognize and use patterns of squares and cubes.	F3a
B.	**Estimation**	
1.	To estimate square roots.	F3a
C.	**Calculators**	
1.	To use calculators to find or approximate solutions to exponential equations.	F3a, F5a
	FUNCTIONS AND GRAPHS	
I.	**FUNCTIONS**	
A.	**Computation**	
1.	To represent a function with a table of values or a graph.	F3a
2.	To recognize, describe, and express in symbols a relationship between two sets.	F3a
B.	**Problem Solving And Applications**	
1.	To solve problems using functions.	F3a
II.	**GRAPHS**	
	To identify and interpret graphs representing situations, tables of values or sentences.	F3a
A.	**Conceptualization**	
1.	To identify an appropriate graph given a table of values or an equation and conversely.	F3a
	PROBLEM SOLVING AND LOGICAL REASONING	
I.	**PATTERNS**	
	To identify, use, and construct patterns.	F3a
A.	To identify a patterns and determine a missing element.	F3a
B.	To create a pattern , given a formal rule.	F3a
C.	To extrapolate by developing a formal rule for a pattern.	F3a
II.	**UNDERSTANDING PROBLEMS**	
	To demonstrate an understanding of a problem	F3a
A.	To determine what is to be found.	F3a
B.	To identify necessary information to solve a problem.	F3a
C.	To determine insufficient information.	F3a
D.	To formulate appropriate questions.	F3a
E.	To formulate a problems for mathematical expressions or number sentences.	F3a
III.	**PROBLEM SOLVING STRATEGIES**	
	To select and apply appropriate problem solving strategies.	F3a
A.	To identify and use a patterns to solve a problem.	F3a
B.	To make an organized list or table to solve a problem.	F3a
C.	To make and test to solve a problem.	F3a
E.	To make or use a drawing, a graph or a physical model to solve a problem.	F3a
F.	To write an open sentence to solve a problem.	F3a
G.	To solve a simpler problem to solve a problem.	F3a
H.	To eliminate possibilities to solve a problem.	F3a
I.	To select the appropriate operation(s) to solve a one-step or multi-step problem.	F3a
IV.	**EVALUATING SOLUTIONS**	
	To interpret and evaluate the solution to a problem.	F3a
A.	To check the solution(s) with the conditions of the problem.	F3a
B.	To find and evaluate alternative processes for solving the problem.	F3a
C.	To formulate an extension of the problem.	F3a
V.	**LOGICAL REASONING**	
	To use logical reasoning.	F2a, F3a
A.	To determine in the attributes used to classify a set and vice-versa.	F2a, F3a

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	B.	To interpret and use statements involving logical operations and quantifiers (and, or, not, if...then, every, all, some, no, at least, at most, each, exactly).	F2a, F3a
	C.	To recognize and draw valid conclusions from given information.	F2a, F3a
		CALCULATORS	
	I.	**CALCULATORS KEYS AND FEATURES**	
		To recognize specific calculator keys and selected calculator features.	F5a
	A.	To recognize specific calculator keys.	F5a
	B.	To recognize appropriate key sequences for automatic constant features.	F5a
	C.	To recognize appropriate calculator keys related to selected terms associated with mathematical operations.	F5a
	II.	**COMPUTATION**	
		To perform appropriate computations with a calculator.	F3a, F5a
	B.	To use a calculator to compute appropriate sums, differences, products and quotients with whole numbers, decimals and fractions.	F3a, F5a
	III.	**LIMITATIONS AND CALCULATOR DISPLAY**	
		To recognize certain common limitations to calculators and be able to interpret selected calculator-displayed symbols.	F3a, F5a
	A.	To recognize and interpret the calculator display.	F5a
	B.	To recognize the limitations of the calculator regarding decimal numbers display and order of operations.	F3a, F5a
SOCIAL STUDIES EDUCATION, GRADES 4-6			
		I=INTRODUCE **D=DEVELOP** **R=REINFORCE**	
		KNOWLEDGE GOALS AND OBJECTIVES	
	1.	**Understand the rights and responsibilities of democratic citizenship.**	F4a
I	a.	Identify rights and liberties guaranteed in the United States Constitution.	F4a
I	b.	Understand situations in which rights have been denied.	F4a
I	c.	Understand that an individuals rights may differ with those of another individual or with the general welfare.	F4a
I	d.	Understand differences between stated rules and actual practices.	F4a
D	e.	Understand and support the right of all to present different points of view.	F4a
I	f.	Understand the responsibility of participation in society and governments both as an individual and as a member of a group. human rights.	F4a
D	j.	Know the responsibility people have to maintain a democratic society.	F4a
	2.	**Understand the role and function of law in a democracy.**	F4a
I	a.	Understand the purposes of law.	F4a
I	b.	Understand how legal and judicial decisions are made.	F4a
I	c.	Understand how laws can be changed.	F4a
I	d.	Understand how conflicts in laws are resolved.	F4a
I	e.	Know the duties of participants in a court of law.	F4a
I	f.	Understand the factors that might affect justice.	F4a
I	g.	Understand the development of legal and judicial procedures.	F4a
I	h.	Understand how the Constitution limits governmental action.	F4a
I	i.	Understand the dynamic nature of law.	F4a
I	j.	Understand the limitations of formal legal processes in settling disputes.	F4a
I	k.	Understand how laws may create conflicting moral obligations.	F4a
I	l.	Understand that the judicial system provides for both public and private justice.	F4a
I	m.	Recognize the differing functions of the civil and criminal justice systems.	F4a

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I	n.	Know individual rights within the criminal justice system.	F4a
	3.	**Understand persistent global issues.**	F4a
D	a.	Define global issues which affect people all over the world	F4a
ID	b.	Understand environmental issues.	F4a
ID	c.	Understand social issues	F4a
ID	d.	Understand global economic issues.	F4a
ID	e.	Understand relationships among global issues.	F4a
ID	f.	Understand interdependence among nations of the world.	F4a
ID	g.	Understand that unsolved issues elsewhere in the world often impact upon the United States.	F4a
ID	h.	Understand that criteria for evaluating personal and social problems may vary from culture to culture.	F4a
ID	i.	Understand possible worldwide effects of decisions made by individuals, communities and nations	F4a
ID	j.	Know how to create, analyze and evaluate alternative futures for the world.	F4a
ID	l.	Understand some of the issues related to food consumption disparity between developed and developing nations.	F4a
I	m.	Understand ways that people are interrelated.	F4a
	4.	**Understand diverse human cultures, customs, beliefs and values systems.**	F4a
D	a.	Understand that people everywhere have the same basic needs, but the manner in which they meet these needs differs according to their culture.	F4a
D	b.	Understand that customs and habits differ from one group to another.	F4a
D	c.	Understand that within a community there may exist one or several cultural, racial, or ethnic groups.	F4a
D	d.	Recognize the importance of being objective and fair in regard to cultural, racial, or ethnic groups.	F4a, G3b
ID	e.	Understand the components of culture.	F4a
ID	f.	Recognize that social-cultural change may create varying degrees of resistance and conflict.	F4a
I	h.	Understand the concept of culture.	F4a
	5.	**Understand the history and present state of their own and other cultures.**	F4a
D	a.	Know basic historical facts related to the development of the United States and other cultures.	F4a
D	b.	Understand urban, rural and suburban development.	F4a
D	c.	Understand the impact of technology on society.	F4a
D	d.	Understand changes in female and male roles.	F4a
I	e.	Understand that there are differences in family structures.	F4a
ID	f.	Understand changes in family, work, and population patterns.	F4a
ID	g.	Identify occupations and career choices.	F4a
ID	h.	Understand the career decision making and planning process.	F4a
I	i.	Identify methods, processes, and effects of change and continuity.	F4a
I	j.	Understand changes in racial/ethnic relations.	F4a
I	k.	Understand persistent social problems.	F4a
I	l.	Understand the development of educational institutions.	F4a
I	m.	Understand the development of religious institutions.	F4a
I	n.	Know historical influences on the development of the governmental system.	F4a
I	o.	Understand that people view the past differently.	F4a
	6.	**Understand basic economics and economic systems.**	F4a
D	a.	Understand basic economic concepts.	F4a
D	b.	Understand the role of money in the economy.	F4a
D	c.	Understand factors that influence economic behavior.	F4a
D	d.	Understand economic concepts as they apply to individual decision-making.	F4a

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ID	e.	Understand the basic functions of an economic system.	F4a
I	f.	Understand how a market economy works.	F4a
I	g.	Understand the historic and current role of labor in our economic system.	F4a
	7.	**Understand how to be an effective producer and consumer of goods and services.**	F4a
DR	a.	Understand factors that influence consumer behavior.	F4a
DR	b.	Give examples of their own listed resources and unlimited wants.	F4a
DR	c.	Demonstrate comparison shopping skills and the use of consumer aids in shopping for various goods and services.	F4a
DR	d.	Identify deceptive sales techniques and practices.	F4a
DR	e.	Recognize the need to conserve energy.	F4a
I	g.	Identify various ways in which members of a household must know and use mathematics to make sound consumer decisions.	F4a
I	h.	Identify the common causes of consumer complaints and redress procedures.	F4a
I	k.	Recognize that consumer decisions to use or conserve energy resources have both individual and aggregate effects, as well as short and long-term consequences.	F4a
	8.	**Understand geographic principles/concepts including relationships between people and the physical environment and the significance of place, location, region, interaction, and diffusion.**	F4a
D	a.	Define the terms environment, place, location, region and interaction.	F4a
D	b.	Describe the physical environment.	F4a
D	c.	Understand how the physical environment is used to meet human needs and wants.	F4a
D	d.	Describe how people have responded to the physical environment.	F4a
D	e.	Identify the locations and characteristics of major places.	F4a
D	f.	Understand why people, things, activities, are located where they are.	F4a
D	g.	Understand how people change the physical environment.	F4a
D	h.	Describe the location and characteristics of major regions.	F4a
D	i.	Describe the interaction which take place within the regions and between regions.	F4a
D	j.	Describe how culture changes as a result of the diffusion of ideas and the migration of people.	F4a
	9.	**Know the main structure and functions of government.**	F4a
DR	a.	Know the purposes of government.	F4a
I	b.	Understand the range and importance of decisions make by state and local government.	F4a
D	c.	Associate governmental actions with the appropriate level of government.	F4a
I	d.	Understand the basic political principles expressed or implied in the U.S. Declaration of Independence, the U.S. Constitution, court decisions and laws.	F4a
I	e.	Understand the organization and functions of state and local governments and their relationships to the federal government.	F4a
I	f.	Understand how decisions made by various levels of government are interdependent.	F4a
I	g.	Understand the limits on decision-making powers of the government.	F4a
I	h.	Understand the legislative process.	F4a
I	i.	Understand voter behavior.	F4a
I	j.	Understand the role of political parties.	F4a
I	k.	Associate excerpts from the Declaration of Independence, Bill of Rights, state constitution, and a local city or township charter with the proper document.	F4a
I	l.	Understand how, when and with what qualifications public officials are nominated, elected, or appointed.	F4a
I	m.	Understand how public officials can be removed from office.	F4a
I	n.	Understand registration and voting procedures.	F4a
I	o.	Recognize the legality and constitutionality of individual and group actions.	F4a
I	p.	Understand interpretations of basic political principles in different periods of U.S. history.	F4a
	10.	**Understand the organization of human societies.**	F4a
D	a.	Compare customs and habits of groups.	F4a
D	b.	Understand ways groups are interdependent, cooperative, and competitive.	F4a

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D	c.	Understand types of conflicts between groups and ways conflicts are resolved.	F4a
D	d.	Understand how and why groups differ.	F4a
D	e.	Understand the decision-making processes used by groups.	F4a
I	f.	Identify the variety of institutions and groups and the functions of those institutions and groups.	F4a
I	g.	Understand why human beings form institutions and groups.	F4a
I	h.	Understand the relationships among institutions, groups, and individuals.	F4a
I	i.	Understand the changing nature of institutions and groups over time.	F4a
	11.	**Understand the relationships between individuals and groups.**	F4a
D	a.	Identify the variety of roles one can have within a group.	F4a
D	b.	Understand that the role within a group may be assigned or achieved.	F4a
D	c.	Understand reasons why there are different roles within groups.	F4a
D	d.	Understand the possible advantages and disadvantages of belonging to a variety of groups.	F4a
I	e.	Understand that multiple loyalties and responsibilities result from belonging to a variety of groups.	
I	f.	Understand the importance of self-confidence and self-worth in carrying out responsibilities within groups.	F4a
I	g.	Understand how groups influence behavior.	F4a
I	i.	Recognize that there are important values and behaviors that develop outside of a group's influence.	F4a
I	j.	Understand the ways different groups react to similar social issues.	F4a
	12.	**Understand the psychology of human behavior.**	F4a
I	a.	Understand the effect of family interaction on a child's development.	F4a
I	b.	Understand the effects of biological factors on human behavior.	F4a
I	c.	Understand verbal and non-verbal indicators of attitude.	F4a
I	d.	Understand the influence of self-concept, perception, role expectations and role conflicts on personal behavior.	F4a
I	e.	Understand the effects of significant emotional and life stage events on human behavior.	F4a
ID	f.	Understand and accept one's own value system and the value systems of others.	F4a, G3a
ID	g.	Understand and develop the interpersonal skills needed to interact with others.	G4
ID	h.	Understand and accept the responsibility and consequences of personal and group decisions.	D
ID	i.	Understand the effects of change upon the individual.	no match
		DEMOCRATIC VALUES GOALS AND OBJECTIVES	
	1.	**Develop awareness and concern for the rights and well-being of others.**	G3a
R	a.	Show concern for the well-being of others' rights.	G3a
D	b.	Show concern for the dignity of others.	G3a
D	c.	Be aware of the distinctive characteristics of others.	G3b
	2.	**Develop a positive self-concept, which includes an awareness of one's self worth, values, ethnic background, and culture.**	G2a
D	a.	Recognize the way in which activities reflect one's own personal values.	F4a
D R	b.	Become aware of family and peer values.	G3b
D R	c.	Respect for their own heritage and background.	G2
R	d.	Realize how personal behavior and learning experiences contribute to a positive self-concept.	G2
R	e.	Recognize acceptable criteria for judging individual actions in a democracy.	F4a
	3.	**Develop an understanding of the values, ethnic background and cultures of people from a variety of racial/ethnic/cultural groups.**	G3b
D	a.	Recognize that ethnic backgrounds and culture determine people's values.	F4a
D	b.	Be aware of positive attributes individuals worthy of emulation from a variety of cultural groups, including groups which make up the American society.	F4a
R	c.	Recognize behaviors which hurt others.	G3a
D	d.	Recognize commonalties and differences among beliefs, values, and behaviors of people	no match

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		from a variety of racial/ethnic/cultural groups.	
D	e.	Be aware of ways of positively interacting with others of varying backgrounds.	no match
D	f.	Show respect for the dignity and wroth of those who belong to a variety of cultural, racial, or ethnic groups.	G3b
D	g.	Recognize the effects of cultural diversity in society.	F4a
D	h.	Recognize relationships and conflicts among beliefs, values, and behaviors of other persons and groups.	F4a
	4.	**Develop a reasoned commitment to the principles and value which sustain a democracy.**	E1a, E1c
IDR	a.	Accept the rights and responsibilities of democratic citizenship.	E1c
IDR	b.	Respect the right of all to present different points of view in the classroom.	G3a
IDR	c.	Respect the right of all to present different points of view in the community.	G3a, G3b
IDR	d.	Respect and support the role and function of laws in a democracy.	E1c
IDR	e.	Respect and support the role and function of responsible dissent in a democracy.	E
	5.	**Develop a commitment to participate in society and governments both as an individual and as a member of a group.**	E1a
ID	a.	Be aware of responsibilities people have to maintain a democratic society.	E
IDR	b.	Recognize characteristics of good leader.	no match
ID	c.	Recognize examples of equity.	F4a
I	d.	Recognize examples of injustices.	F4a
I	e.	Defend rights and liberties of all people.	G3c
I	f.	Support equal opportunity.	G3c
I	g.	Recognize and encourage ethical and lawful behavior in others.	E
I	j.	Recognize that individual civic action is important.	E1a, F4a
I	k.	Work for improvement of conditions by applying personal skills.	E2b
I	l.	Participate in government.	E1a, E2a
		SKILLS, GOALS AND OBJECTIVES	
	1.	**Gather, interpret, analyze, summarize, synthesize and evaluate information.**	F2a
DR	a.	Use a variety of senses to obtain information.	F4
D	b.	Choose appropriate sources for information desired.	F4
D	c.	Obtain desired information from a variety of sources.	F4
D	d.	Group data into appropriate categories.	F2a, F4
D	e.	Recognize that people may interpret the same objects or events differently.	G3b
D	f.	Identify cause and effect relationships.	F2a, F4
D	g.	Distinguish between fact and opinion.	F2a, F4
DR	h.	Formulate predictions based on factual information.	F2a
DR	i.	Translate information from one form to another.	F2a, F4
D	j.	Draw inferences from a variety of sources.	F4
D	k.	Identify specific sub-topics of major topics.	F4
D	l.	Detect bias in data presented.	F4
D	m.	Compare and contrast information.	F2a, F4
D	n.	Select main ideas from information.	F2a, F4
D	o.	Arrange information in usable forms.	F4
D	p.	Draw conclusions.	F2a
D	q.	Formulate hypotheses.	F2a
ID	r.	Determine different outcomes if events were changed.	F4
D	s.	Propose a new plan.	F4
D	t.	Decide if information is significant to the topic.	F4
ID	u.	Evaluate the quality of information.	F2a, F4
ID	v.	Test hypotheses and revise as needed.	F2a, F4
	2.	**Make Decisions**	
ID	a.	Recognize the occasion and need for decisions.	F4
ID	b.	Analyze the problem.	F2a, F4

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D	c.	Identify possible alternative courses of action.	F2a, F4
ID	d.	Project long and short term consequences of possible alternative courses of action.	F2a, F4
ID	e.	Identify and evaluate consequences of possible alternative courses of action.	F2a, F4
D	f.	Choose and develop strategies to carry out the decision.	F2a, F4
D	g.	Apply the strategies in implementing a decision or solving a problem.	F2a, F4
ID	h.	Re-evaluate and reformulate the process if goals are not met or new information is introduced.	F2a, F4
	3.	**Develop the skills necessary for participation in society and governments both as an individual and as a member of a group.**	E, F4, G4b
D	a.	Present own ideas.	F4
ID	b.	Paraphrase what has been heard and obtain agreement from the speaker that the paraphrasing is correct.	F4
D	c.	Listen and respond appropriately.	F1
ID	d.	Solicit clarification from others when needed.	F1
D	e.	Encourage others to express themselves.	no match
D	f.	Recognize that divergent roles exist within a group.	G3b
D	g.	Recognize emotions and feelings operating within a group and allow for their expression.	G4b
D	h.	Recognize and permit the expression of different values, beliefs and ideas within a group.	G4b
D	i.	Remain open to change.	no match
ID	j.	Use conflict resolution strategies.	no match
	4.	**Reading/Study skills in the social studies.**	F4a
DR	a.	Use word analysis skills.	F4
D	b.	Use context clues to gain meaning.	F3b
D	c.	Use appropriate late sources to gain meaning of essential terms and vocabulary.	F4
D	d.	Recognize, define and appropriately use social studies terms.	F4a
D	e.	Obtain literal meaning from written materials.	F3b
D	f.	Obtain interpretive and implied meaning from written materials.	F3b
D	g.	Identify and use various parts of a book and other written material.	F4
D	h.	Read for a variety of purposes.	F3b
D	i.	Adjust reading to suit various purposes.	F3b
D	j.	Use resources and services that the library provides.	F4
D	k.	Apply computer operational skills to run a software program.	F5a
	5.	**Map and globe skills.**	F4a
D		a. Identify that globes and maps are models.	F4a
D		b. Orient a map and note directions.	F4a
D		c. Locate places on maps and globes.	F4a
ID		d. Use scale and compute distances.	F4a
D		e. Identify, interpret and use map symbols.	F4a
ID		f. Compare and contrast maps.	F4a
		SCIENCE EDUCATION, ELEMENTARY	
		Constructing New Scientific Knowledge (objectives for grade levels)	
		Objective 1. Generate reasonable question about the world, based on observation.	F2a, F4a
		2. Develop solutions to unfamiliar problems through reasoning, observation, and/or experimentation.	F2a, F4a
		3. Manipulate simple mechanical devices and explain how they work.	F4a, F5a
		4. Use simple measurement devices to make metric measurements.	F4a
		5. Develop strategies and skills for information gathering and problem solving.	F2a, F4a
		6. Construct charts, graphs, and prepare summaries of observations.	F4a
		Reflecting on Scientific Knowledge (objectives for grade levels)	
		Objective 1. Develop an awareness of the need for evidence in making decisions scientifically.	F4a
		2. Show how science concepts can be interpreted through creative expression such as	F4a, F4b

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language arts and fine arts.	
3. Develop an awareness of and sensitivity to the natural world.	F4
4. Describe how technology is used in everyday life.	F4a
5. Develop an awareness of the contributions made to science by people of diverse backgrounds.	F4a
USING SCIENTIFIC KNOWLEDGE TO UNDERSTAND LIFE SCIENCE	
Cells (objectives for grade levels)	
Objective 1. Describe cells as living systems.	F4a
Living Things (objectives for grade levels)	
Objective 1. Compare and classify familiar organisms on the basis of observable physical characteristics.	F4a
2. Describe vertebrates in terms of observable body parts and characteristics.	F4a
3. Describe life cycles of familiar organisms.	F4a
4. Compare and contrast food, energy, and environmental needs of selected organisms.	F4a
5. Describe functions of selected seed plant parts.	F4a
Heredity (objectives for grade levels)	
Objective 1. Give evidence that characteristics are passed from parents to young.	F4a
Evolution (objectives for grade levels)	
Objective 1. Explain how fossils provide evidence about the nature of ancient life.	F4a
2. Explain how physical and/or behavioral characteristics of organisms help them to survive in their environments.	F4a
Ecosystems (objectives for grade levels)	
Objective 1. Identify familiar organisms as part of a food chain or food web and describe their feeding relationships within the web.	F4a
2. Explain common patterns of interdependence and interrelationships of living things.	F4a
3. Describe the basic requirements for all living things to maintain their existence.	F4a
4. Describe systems that encourage growing plants animals.	F4a
5. Describe positive and negative effects of humans on the environment.	F4a
USING SCIENTIFIC KNOWLEDGE TO UNDERSTAND PHYSICAL SCIENCE MATTER AND ENERGY (objectives for grade levels)	
Objective 1. Classify common objects and substances according to observable attributes: color, size, shape, smell, hardness, texture, flexibility, length, weight, buoyancy, states of matter, magnetic properties.	F4a
2. Measure weight, dimensions, and temperature of appropriate objects and materials.	F4a
3. Identify properties of materials that make them useful.	F4a
4. Identify forms of energy associated with common phenomena.	F4a
5. Describe the interaction of magnetic materials with other magnetic and non-magnetic materials.	F4a
6. Describe the interaction of electrically charged material with other charged or uncharged material.	F4a
7. Describe possible electrical shock hazards to be avoided at home and at school.	C2a
Changes in Matter (objectives for grade levels)	
Objective 1. Describe common physical changes in matter (size, shape, melting, freezing, dissolving).	F4a
2. Prepare mixtures and separate them into their component parts.	F4a
3. Construct simple objects that fulfill a technological purpose.	F4a
Motions of Objects (objectives for grade levels)	
Objective 1. Describe or compare motions of common objects in terms of speed and direction.	F4a
2. Describe how forces (pushes or pulls) speed up, slow down, stop, or change the direction of a moving object.	F4a
3. Use simple machines to make work easier.	F4a, F5a

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Waves and Vibrations (objectives for grade levels)	
Objective 1. Describe sounds in terms of their properties (pitch, loudness).	F4a
2. Explain how sounds are made.	F4a
3. Describe light from a light source in terms of its properties.	F4a
4. Explain how light illuminates objects.	F4a
5. Explain how shadows are made.	F4a
USING SCIENTIFIC KNOWLEDGE TO UNDERSTAND EARTH AND SPACE SCIENCE GEOSPHERE (objectives for grade levels)	
Objective 1. Describe major features of the earth's surface.	F4a
2. Recognize and describe different types of earth materials.	F4a
3. Explain how rocks and fossils are used to understand the history of the earth.	F4a
4. Describe natural changes in the earth's surface.	F4a
5. Describe uses of materials taken form the earth.	F4a
6. Demonstrate means to recycle manufactured materials, and a disposition toward recycling.	E1a, F4a
Hydrosphere (objectives for grade levels)	
Objective 1. Describe how water exists on earth in three states.	F4a
2. Trace the path that rain water follows after it falls.	F4a
3. Identify sources of drinking water.	F4a
4. Describe uses of water.	F4a
Atmosphere and Weather (objectives for grade levels)	
Objective 1. Describe the atmosphere.	F4a
2. Describe weather conditions and climates.	F4a
3. Describe seasonal changes in weather.	F4a
4. Explain appropriate safety precautions during severe weather.	C2a, F4a
Solar System, Galaxy, and Universe (objectives for grade levels)	
Objective 1. Compare and contrast the sun, moon and earth.	F4a
2. Describe the motions of the earth and moon around the sun.	F4a

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Document Utilized

Montana School Accreditation Standards and Procedures Manual, Appendix A, Model Learner Goals (August, 1993)

Background

In 1989, the State Board of Education adopted accreditation standards. These program-area standards are mandatory for districts, but the norm-referenced assessment required in the accreditation standards is not tied to performance levels. Although the standards are currently in place, the state has begun to examine and revise them under the *Goals 2000: Educate America Act.* The current program-area standards do not contain grade groupings; the standards apply to K-12. The model learner goals contain goals for the primary level, intermediate level, and upon graduation.

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MODEL LEARNER GOALS	NCEO CODE
COMMUNICATION ARTS	
GENERAL COMMUNICATION ARTS LEARNER GOALS	
1. In the study of languages, students shall be given the opportunity to:	
a. Learn how languages function, evolve, and reflect cultures.	F4a
b. Learn how context- topic, purpose, audience--influences the structure and use of language.	F4a
c. Have the opportunity to develop second-language proficiency.	F4a
2. In the study of literature, students shall be given the opportunity to:	
a. Read, listen to, view, and study a variety of classical, contemporary, and multicultural literature, at all grade levels. Literature shall include poetry, fiction and nonfiction, and drama.	F4b
b. Respond to literature through writing, speaking, and through media and the fine arts.	F1a, F3c, F4b
c. Gain insights from literature, recognizing it as a mirror of human experience.	F4b
d. Learn about their own and other cultures and recognize that literature is a reflection of culture	F4b
e. Experience literature as a way to appreciate the rhythms and beauty of language.	F4b
3. In the study of communication skills, five interwoven strands: listening, speaking, reading, writing, and using media, students shall be given the opportunity to:	
a. Understand and practice the process of listening: perceiving, discriminating, attending, assigning meaning, evaluating, responding, and remembering.	F1
b. Speak effectively, formally and informally, in all five basic communication functions: expressing feelings, utilizing social conventions, imagining, informing, and controlling.	F1a
c. Read for both pleasure and information and approach reading as search for meaning.	F3b
d. Write clearly and effectively to express themselves and to communicate with others.	F3c
e. Use, view, and understand print and electronic media and be aware of the impact of technology and the media on communication.	F5a
4. In the study of thinking, students shall be given the opportunity to:	
a. Think creatively, exploring unique insights, points of view, and relationships.	F4
b. Think logically, testing the validity of arguments and detecting fallacies in reasoning.	F2a
c. Think critically, asking questions, making judgments, and evaluating messages.	F2a
ENGLISH LANGUAGE MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the students shall have had the opportunity to recognize that:	
a. People label objects and ideas with words and that words and their meanings change over time and through usage.	F4b

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b.	Groups of people use different pronunciations and word choices to refer to the same objects and ideas.	F4a
c.	Language changes to accommodate subject, audience, and purpose.	F4a
	SECOND LANGUAGE MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Experience rhymes, stories, songs, and dramatic activities that promote enjoyment in learning a second language.	F4
b.	Recognize some cultural traditions from the second language culture.	F4
c.	Reproduce and understand sounds, words, and sentences using pronunciation, stress, rhythm, and intonation.	F4
d.	Speak and understand a second language in informal conversations, using simple vocabulary.	F4
	LITERATURE MODEL LEARNER GOALS: PRIMARY	
1.	By the end of primary level, the student shall have had the opportunity to:	
a.	Experience a variety of classical, contemporary, and multicultural works of literature, including poetry, fiction and nonfiction, and drama.	F4b
b.	Respond to a literary work by recapturing the meaning of plot in words, dramatic presentations, or pictures.	F4b
c.	Recognize and make associations with the people, places, and problems in her/his reading.	F4b
d.	Begin to understand culture through literature.	F4b, G3b
e.	Recognize an appreciate rhythm, rhyme, and repetition and other qualities of language in literature.	F4b
f.	Begin to evaluate the major components of literary works, including characters, setting, and action.	F4b
g.	Create and share original pieces of literature that use characters, setting, and action.	F4b
	LISTENING MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Discriminate between significant and insignificant sounds and words.	F1
b.	Develop a "listening set": anticipate meaning, ignore distraction, and visualize what is heard	F1
c.	Assign a basic meaning to what is heard by recognizing the main ideas and supporting details.	F1
d.	Distinguish new from familiar material, significant from insignificant, and fantasy from reality.	F1
e.	Respond to what is heard by asking questions, following directions, and giving feedback.	F1
f.	Remember important aspects of the message.	F1
	SPEAKING MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Show an awareness of oral expression features: pronunciation, volume, and rate of speaking	F1a
b.	begin to adapt speech to audience and context in order to communicate ideas clearly.	F1a
c.	Begin to establish a relationship with the audience through eye contact and attending to audience reaction.	F1a
d.	Develop confidence as a speaker through experience with the five functions of speaking : expressing feelings, utilizing social conventions, imagining , informing, and controlling.	F1a, G2b
	READING MODEL LEARNING GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Associate the written form with the spoken word.	F1, F3b
b.	Use invention, organization, style, and delivery to enhance messages.	F1a
c.	Use audience analysis to prepare and present speeches.	F1a
	WRITING MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	

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a.	Write frequently, using varied formats, for a variety of purposes and audiences.	F3c
b.	Recognize how spelling, punctuation, capitalization, and handwriting contribute to meaning in writing.	F3c
c.	Understand how to generate and organize ideas and how to create a clear written message.	F3c
d.	Respond to, revise, and edit his/her own and other's writing.	F3c
	MEDIA USE MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level the student shall have had the opportunity to:	
a.	Develop a "viewing" set and adopt appropriate behavior for appreciating a media performance or presentation.	F4b
b.	Recognize, use and operate a variety of media equipment.	F5a
c.	Understand the basic components and characteristics of media.	F5a
	THINKING SKILLS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Begin to demonstrate thinking skills such as comparing, contrasting, inferring, and evaluating in both verbal and nonverbal communication.	F2a
b.	Respond to an experience by creating an action (a pantomime, picture, poem, or story) to express understanding.	F4b
c.	Express associative thinking as well as creativity and inventiveness.	F4b
FINE ARTS		
	GENERAL GOALS: Through the Fine Arts, students develop critical and creative thinking and perceptual abilities applicable to all areas of life.	
1.	A basic program in fine arts gives the student the opportunity to:	
a.	Understand the principal sensory, formal, technical, and expressive qualities of each of the fine arts.	F4b
b.	Identify processes, materials, tools, and disciplines required to produce the visual, performing, and literary arts.	F4b
c.	Apply their knowledge of concepts, elements, principles, theories, and processes in the fine arts.	F4b
d.	Develop their intuitive and creative thought processes as a balance to learning in the cognitive and psychomotor domains.	F4b
e.	Make informed judgments about the fine arts and about their relationships to the history, culture, and environments of the world's people.	F2a, F4b
f.	Understand the relevance of their education in the fine arts to the range of fine arts professions and to a lifetime of aesthetic pleasure.	F4b
g.	Use materials, tools, and equipment safely.	C2a
	VISUAL ARTS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have been given the opportunity to:	
a.	Begin to recognize different works of art and identify artists, placing them in historical time and place.	F4b
b.	Be familiar with and appreciate the various sources of art in the community (museums, galleries, studios, public places).	F4b
c.	Begin to recognize universal emotions and experiences expressed in selected visual images.	F4b
d.	Identify and use the elements of art and principles of art in organizing for personal expression.	F4b
e.	Learn to appropriately select and to care for a variety of art materials, media and tools.	F4b
f.	Use appropriate vocabulary to describe the expressive qualities of a variety of works of art and evaluate art experiences.	F1a, F4b
g.	Experience a sense of accomplishment and pleasure from the creative act.	F4b, G2b
h.	Enjoy and appreciate a variety of art works.	F4b

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	LITERARY ARTS	
	DRAMA MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have been given the opportunity to:	
a.	Understand how movement, sound, and setting convey emotions and meaning in short dramatic performances (live or recorded).	F4b
b.	Recount emotional and sensory responses to a dramatic activity as a listener and viewer.	F1, F4b
c.	Identify body, voice, costume, and make-up as elements of characterization.	F4b
d.	Understand the daily-life sources of dramatic art: story, character, and conflict.	F4b
e.	Express original interpretations of ideas and objects through the use of dramatic elements in a solo or group performance.	F1, F4b
f.	Uses pantomime, puppets, or other dramatic devices to express individual interpretations of ideas, concepts, objects, or familiar stories.	F4b
g.	Enjoy and appreciate a variety of dramatic selections and experiences.	F4b
	MUSIC MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Realize the importance of music in everyday life	F4b
b.	Respect musical performance and composition.	F4b
c.	Begin to recognize universal emotions and experiences expressed in music of various cultures and periods.	F4b
d.	Enjoy participating in music and use music as a means of persona expression.	F4b
e.	Sing with free vocal production a repertoire of folk and composed songs.	F4b
f.	Use body movements and/or hand motions to show differences in music.	F4b
g.	Use voice and instruments to create melodic and rhythmic patterns to accompany songs.	F4b
h.	Recognize band and orchestra instruments and identify the major instrument groups.	F4b
i.	Create short pieces, using nontraditional sounds available in the classroom, such as tapping fingers or striking various objects.	F4b
	CREATIVE MODEL GOALS: PRIMARY	
2.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Be aware of feelings evoked by dance performance and/or creative movement.	F4b
b.	Develop body awareness through creative movement	F4b
c.	Respond spontaneously in movement to various material, conceptual, and sensory stimuli.	F4b
d.	Reproduce simple dance forms of other cultures, ethnic background, and historical periods.	F4b
e.	Enjoy simple rhythmic patterns in a movement sequence.	F4b
f.	Improvise creative movement around a tool, materials, dance element, or sensory stimulus.	F4b
g.	Communicate personal feelings and ideas buy using movement.	F1a, F4b
h.	Determine preferences for specific dance forms.	F4b
	HEALTH ENHANCEMENT	
	MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Demonstrate a variety of perceptual, motor, and rhythm skills, including but not limited to throwing, catching, kicking, striking, balancing, creative movement and folk dance, and skills related to lead-up games.	C1b
b.	demonstrate and appropriate level of physical fitness in cardiorespiratory function, body composition, and musculoskeletal performance.	C3a
c.	Develop positive interpersonal relationships and self-concepts.	G2, G4a
2.	By the end of the primary level, the student shall have had the opportunity to identify:	
a.	Components of wellness and describe how decision making affects personal health practices.	C1
b.	Roles, responsibilities, contributions, and life cycles in a family structure.	D1a
c.	The difference between use and abuse of drugs and their effects on an individual's total development	C2d

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d.	Safety hazards, causes of accidents, and preventive measures for disease control.	C2a, C2c
e.	Human body parts and systems, emphasizing individual uniqueness.	F4
f.	Ways in which advertising influences personal health choices.	F4
g.	Food combinations that provide a healthy and balanced diet.	C1a
h.	Potential sources of pollution and pollution's harmful effects.	C2d, F4
i.	Resources which help promote and maintain community health.	B2a, C1
MATHEMATICS		
	MODEL LEARNER GOALS: PROBLEM SOLVING: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Solve problems from many contexts using strategies such as guess and check, make a table, looking for a pattern and simplify the problem.	F2a, F3a
b.	Discuss alternate solution strategies and relationships among problems.	F2a, F3a
c.	Use calculators as a problem-solving tool.	F3a, F5a
	MODEL LEARNER GOALS: COMMUNICATION: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Use oral and written language and symbols to communicate and extend mathematical ideas.	F1a, F3a, F3c
	MODEL LEARNER GOALS: REASONING: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Describe, extend, and create auditory, visual, and written patterns	F3a
b.	Represent and describe relationships between quantities.	F3a
c.	Explain his/her thinking and justify solutions using models, known facts, properties, relationships, and real world experience.	F1a, F3a
	NUMERATION, COMPUTATION, AND ESTIMATION MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Understand and construct number meanings through real world experiences and physical materials.	F3a
b.	Demonstrate understanding of our numeration system by relating counting, grouping, and place value concepts.	F3a
c.	Understand and apply the operations of addition, subtraction, and multiplication of whole numbers.	F3a
d.	Demonstrate an intuitive understanding of division of whole numbers.	F3a
e.	Model, explain, and demonstrate proficiency with basic facts, algorithms, and mental arithmetic techniques.	F3a
f.	Apply estimating strategies to working with quantities, measurement, computation, and problems solving.	F3a
g.	Use estimation to determine reasonableness of results.	F3a
h.	Use inverse operations and other mathematical relationships to solve number sentences.	F3a
i.	Demonstrate the meanings of familiar fractions, mixed numbers, and decimals to tenths.	F3a
j.	Use models to relate fractions to decimals, find equivalent fractions, and demonstrate the operations with decimals.	F3a
	MEASUREMENT MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Understand measurable attributes, the concept of a unit, and the process of measuring.	F3a
b.	Apply measurement skills to everyday situations.	F3a
	GEOMETRY MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Describe, model and classify shapes.	F3a

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b.	Investigate and predict results of combining, subdividing, and changing shapes.	F3a
c.	Identify lines of symmetry, congruent and similar shapes, and positional relationships.	F3a
	STATISTICS & PROBABILITY MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Collect, organize, and display data.	F3a
b.	Use data to make and check predictions.	F3a
c.	Demonstrate the basic concept of probability.	F3a
SCIENCE		
	GENERAL SCIENCE MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Show confidence in his/her ability to learn science.	F4a, G2b
b.	Examine his/her environment using the five senses; recognize the limits of sensory perception.	F1a, F3c, F4a
c.	Convey information through the use of oral, written, and graphic communication.	F4a
d.	Group objects or events according to their observed characteristics.	F4a
e.	Suggest explanations for events based on observation.	F2a, F4a
f.	Predict possible results based upon past experiences.	F2a, F4a
g.	Measure and order properties of objects or events using standardized units of measure	F4a
h.	Be aware of spatial relationships by describing an object's position in relation to other objects.	F4a
i.	Perform experiments to these hypotheses under controlled conditions with limited variables.	F4a
j.	Cite ways that science and technology have changed people's lives.	F4a
k.	Recognize that scientists and technicians are people with interesting jobs.	F4a
l.	Properly care for living organisms and show respect for life and property.	F4a
m.	Be aware of the need for conservation, preservation, and the wise use of natural resources.	F4a
	EARTH SCIENCE MODEL LEARNER GOALS	
1.	If offered, a course of study in earth science shall give the student the opportunity to:	
a.	Understand the basic concepts of each science, including astronomy, geology, oceanography, and paleontology.	F4a
b.	Understand the basic motions in the solar system and how they affect the earth's environment.	F4a
c.	Understand the earth's history through the rock and fossil record and scientific dating methods	F4a
d.	Understand the earth's tectonic and structural forces.	F4a
e.	Understand the earth's internal and surface processes, including weathering, erosion, volcanism, and deformation.	F4a
f.	Understand the use of aerial photos, topographic and geologic maps, and survey systems.	F4a
g.	Understand the earth's composition, including rocks and minerals.	F4a
h.	Understand the physical and compositional changes of the earth's weather and climate.	F4a
i.	Understand the oceans and their characteristics and development.	F4a
j.	Understand surface water and ground water systems.	F4a
k.	Understand that the flow of energy is basic to all earth science disciplines.	F4a
l.	Use the tools and methods employed by earth scientists, through field and laboratory experiences.	F4a
m.	Demonstrate how earth science relates to careers, personal uses, and social needs.	F4a
	BIOLOGY MODEL LEARNER GOALS	
1.	If offered, a course of study in biology shall give the student the opportunity to:	
a.	Use scientific methods to investigate biological phenomena.	F4a
b.	Relate field experiences to an understanding of ecological principles.	F4a
c.	Use microscopes, balances, and other biological instruments.	F4a
d.	Apply biological principles to situations in daily life.	F4a

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e.	Understand the characteristics processes which define life.	F4a
f.	Understand the relationship between organic compounds and the physiological needs of living organisms.	F4a
g.	Understand the relation and interdependence of cell respiration and photosynthesis to food chains.	F4a
h.	Understand the concepts of homeostasis in cells, individuals, populations, communities, and ecosystems.	F4a
i.	Understand cellular transport, cell structure, and cell functions.	F4a
j.	Understand sexual and asexual reproduction and their relationship to ecological balances.	F4a
k.	Understand heredity and the application of modern technology in medical genetics.	F4a
l.	Understand the structure of DNA, its relationship to protein synthesis, and its role in living systems.	F4a
m.	Understand the theory of evolution and its relationship to adaptation and speciation.	F4a
n.	Categorize organisms representing the various kingdoms according to phyla.	F4a
o.	Understand the relationship between structure and function as they relate to living things.	F4a
p.	Trace the developments of the major live functions through the various kingdoms.	F4a
q.	Understand the importance of microbes and their relationship to other organisms.	F4a
r.	Understand the importance of current issues in biology.	F4a
s.	Be aware of careers in biology.	F4a
t.	Use appropriate safety techniques when handling chemicals, equipment, and organisms.	C2a, F4a
	CHEMISTRY MODEL LEARNER GOALS	
1.	If offered, a course of study in chemistry shall give the student the opportunity to:	
a.	Be competent in laboratory skills, including setting up equipment and using materials and chemicals safely.	C2a, F4a, F5a
b.	Understand atomic structure and periodicity.	F4a
c.	Understand the phases and properties of matter, including solids, liquids, and gases.	F4a
d.	Understand the mole concept and stoichiometry and demonstrate their practical use in the laboratory.	F4a
e.	Understand bonding and energy relationships.	F4a
f.	Use formulas and equations competently.	F4a
g.	Understand acids, bases, solubility, and chemical equilibrium.	F4a
h.	Understand the basic principles of thermodynamics and kinetics.	F4a
i.	Understand oxidation and reduction.	F4a
j.	Understand basic organic, nuclear, and radiochemistry.	F4a
k.	Understand the role of chemistry in society and technology.	F4a
l.	Be able to apply chemistry principles to situations in daily life.	F4a
m.	Be aware of careers in chemistry and related fields.	F4a
	PHYSICS MODEL LEARNER GOALS	
1.	If offered, a course of study in chemistry shall give the student the opportunity to:	
a.	Solve problems in physics, using mathematics and critical thinking skills.	F2a, F3a, F4a
b.	Collect, analyze, and interpret physical data.	F4a
c.	Use the appropriate instruments to measure physical quantities in a laboratory setting.	F4a
d.	Understand the historic, social, and scientific events that contributed to the developments of physics.	F4a
e.	Understand that physics is a dynamic field in which concepts change as new data and new relationships are discovered.	F4a
f.	Understand the character and central role of conservation principles such as momentum, energy, and electric charge.	F4a
g.	Cite similarities and differences of wave and particle phenomena in nature.	F4a
h.	Demonstrate a basic knowledge of modern physics concepts such as relativistic effects, nuclear radioactivity, and wave-particle duality	F4a
i.	Understand the basic principles of electricity and magnetism and their application to common occurrences.	F4a

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j.	Cite accepted explanations for common terrestrial and celestial observations, using the laws of motion.	F4a
k.	Understand that the flow of energy is basic to all physical phenomena.	F4a
l.	Understand the basic concepts of geometric and physical optics.	F4a
m.	Understand the basic character of the, temperature, and internal (thermal) energy.	F4a
n.	Evaluate the impact of discoveries in physics.	F4a
o.	Be aware of careers in physics and related fields.	F4a
p.	Understand the importance of physics in current social issues and its application to the other sciences.	F4a
q.	Be able to apply physics principles to situations in daily life.	F4a
SOCIAL STUDIES		
	HISTORY & WORLD CULTURE MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Begin to identify cultural characteristics such as social traditions, art forms, and language.	F4a
b.	Demonstrate some basic knowledge about important chronological events in local, state, national , and world history.	F4a
c.	Begin to provide examples of economic, cultural, political, and technological developments which have contributed to human progress.	F4a
d.	Begin to identify individuals who played historical roles.	F4a
	LAW AND LEGAL RIGHTS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	List some of the basic characteristics of the U.S. Constitution.	F4a
b.	Explain some of the freedoms contained in the bill of Rights.	F4a
c.	Understand the basic functions of the U.S. governments.	F4a
d.	Begin to identify different levels of government, such as city, county, state, tribal, and federal government.	F4a
e.	Explain some of the basic sources of law, such as congress and state legislatures.	F4a
f.	List basic public services provided by government.	F4a
g.	Experience involvement in his/her community through active participation in a community group.	D2b, E2a, F4a
	ECONOMICS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Provide some basic examples of the relationship between economics and human needs.	F4a
b.	Cite some characteristics of supply and demand.	F4a
c.	List the roles of people in the division of labor.	F4a
d.	List basic economic systems, such as private enterprise and collective economies.	F4a
	GEOGRAPHY MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Begin to list the basic characteristics of natural, physical, and cultural environments.	F4a
b.	Learn to explain the earth/sun relationship as an energy system.	F4a
c.	List the seasons	F4a
d.	Explain the cause of night and day.	F4a
e.	Determine geographical location, such as position, site, and distance.	F4a
f.	locate different cultural and physical regions.	F4a
g.	List the basic characteristics of climate.	F4a
h.	Identify the basic land forms and water bodies.	F4a
i.	Give examples of the need for and benefits of natural resource conservation.	F4a
j.	Provide examples of the influence of geography on population size and distribution.	F4a
k.	Provide examples of land use.	F4a
l.	Define habitat.	F4a

Montana

		NCEO CODE
m.	List the characteristics and use of maps.	F4a
	SOCIAL INSTITUTIONS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Begin to identify the traits of socialization, such as psychological, individual, and group behavior.	F4a
b.	List individual responsibilities, such as honesty, tolerance, and compassion.	D
c.	List some of the basic social institutions, such as family, educational, and religious institutions.	F4a
d.	Identify some of the basic differences between individual values and group norms.	F4a
e.	Begin to discuss traits of interactive social processes, such as cooperation, competition, and conflict and how social roles of leadership, following, aggression, and submission affect these processes.	F4a
f.	Identify some social classes and social groups, including ethnic and minority groups.	F4a
g.	Give examples of social control, such as dependency, reward, and punishment.	F4a
	CRITICAL THINKING, PROBLEM SOLVING, AND DECISION MAKING MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Classify information by sequence and in groups	F2a
b.	Interpret information by stating relationships, noting cause and effect, drawing inferences, and predicting outcomes.	F2a
c.	Analyze information by organizing key ideas, separating major components, examining relationships, detecting bias, and comparing and contrasting ideas.	F2a
d.	Summarize information by restating major ideas and forming opinions.	F2a
e.	Synthesize information by using criteria such as source, objectivity, and technical correctness	F2a
f.	Evaluate information by sing criteria such as source, objectivity, and technical correctness.	F2a
g.	Apply decision-making skills by securing needed factual information, recognizing values, identifying alternative courses and consequences, and taking action.	F2a
	STUDY & RESEARCH SKILLS MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Identify key words and ideas and summarize them.	F4
b.	Apply research skills such as questioning and the use of library and other resources to find answers.	F4
VOCATIONAL/PRACTICAL ARTS		
	GENERAL MODEL LEARNER GOALS: PRIMARY	
1.	By the end of the primary level, the student shall have had the opportunity to:	
a.	Be aware of various careers open to all students without regard to gender stereotyping.	no match
b.	Practically apply the oral and written communication skills related to vocational education.	F1a
c.	Apply introductory skills in technical literacy.	F4
d.	Be aware of essential life and work skills, including acceptable social behavior, self-esteem, positive personal relationships, and respect for authority.	D1a, E1a, G4a
e.	Be introduced to the relationship between academic knowledge and practical application.	no match
f.	Demonstrate introductory concepts, skills, attitudes, and values in traffic education.	F4
	AGRICULTURAL EDUCATION MODEL LEARNER GOALS	
1.	If offered, a course of study in agriculture shall give the student the opportunity to:	
a.	Be able to select self-employment or an appropriate career in the area of agricultural business and production.	no match
b.	Display leadership, citizen, and cooperation developed through membership and participation in civic and vocational organizations.	E, G4b
c.	Demonstrate knowledge, skills, attitudes, and practical experience as determined through task	F4

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	NCEO CODE
analysis for self-employment in:	
i. Basic soils management; plant growth and reproduction; field crop production, marketing, and management; range management; horticulture; and forestry.	F4
ii. Selection, breeding, and rearing of commercially important species of livestock; animal nutrition, health, and care; and the profitable management and marketing of livestock.	F4
iii. Agricultural mechanization, including safety and care of hand and power tools, welding equipment, basic electricity, basic and applied power farm machinery.	F4
iv. Agricultural management, marketing, and economic principles; and business financial planning, including leasing, credit, depreciation, and machinery economics.	F4
v. Propagation, management, and marketing of economically important horticulture crops.	F4
vi. Forestry production, transportation, processing, marketing, and distribution.	F4
HOME ECONOMICS AND HOME ECONOMICS WAGE EARNING MODEL LEARNER GOALS	
Home economics education provides skills for home and family living and prepares students for home economics wage earning occupations.	
Consumer and homemaking programs help students establish and maintain a successful home and family life. Students learn management, priority setting, and interpersonal relationships skills in child development, family relations, clothing and textiles, foods and nutrition, housing, and consumer education.	
Wage earning income home economics provides education for gainful employment in an occupation related to home economics. Wage earning programs are offered through secondary coursework and on-the-job experience.	
1. If offered, a course of study in home economics shall give the student the opportunity to:	
a. Be able to use skills which improve the quality of individual and family life.	F4
b. Apply effective strategies for his/her future roles as employee/employer and home manager.	F4
c. Use technology to meet personal and family needs.	F5a
d. Use applied learning to develop transferable job skills.	F4
e. Develop an awareness of careers related to home economics.	F4
f. Understand the world of work through entrepreneurship.	F4
g. Understand the role of home economics and the family in economic development and worker productivity.	F4
h. Develop consumer competence.	F4
i. Develop leadership through civic and vocational organizations.	E, F4
TRAFFIC EDUCATION MODEL LEARNER GOALS	
1. Traffic education shall be an integrated K-12 curriculum that develops the concepts, skills, attitudes and values needed for a lifetime of safe, drug-free, courteous, and efficient use of roadways, as a passenger, pedestrian, bicyclist, or motor vehicle operator.	
2. If offered, a course study in traffic education shall give the student the opportunity to:	
a. Demonstrate an awareness that one's physical, emotional, and mental health are essential to the proper use of streets and highways.	F4
b. Use the fundamental processes learner in earlier years.	F4
c. Understand how to use road maps, how to read and interpret instructions, and how to compute speed and stopping distances; understand the laws of motion.	F4
d. Understand that a person who can operate a vehicle safely and efficiently is a worthy family member, since American families depend on the automobile for a variety of occupational and recreational uses.	F4
e. Be prepared to use motor vehicle for occupational and recreational purposes.	F4
f. Develop a good citizenship by complying with laws; by exercising civic responsibility for improving laws through legislation; and by practicing the habits of fair play, courtesy, and maintenance of property.	E1, E1a, G3a
g. Understand a driver's responsibility for the safety of others and exercise a respect for road ethics and the law.	C2, E1

Montana

	NCEO CODE
LIBRARY/MEDIA	
INFORMATION ACCESS MODEL LEARNER GOALS: PRIMARY Library/Media center gives students access to information and resources in a variety of formats. It helps them develop the skills needed for lifelong learning in an information-based society.	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Demonstrate good library citizenship, such as caring for and returning materials, and express a sense of ownership of his/her school library/media center.	F4
b. Be aware of the library catalog and possess the beginning skills to identify and locate print and nonprint materials.	F4
c. Know what reference means and that there are sources for reference; have beginning skills to use reference such as dictionaries and encyclopedias.	F4
d. Translate information from print and nonprint resources.	F4
e. Conduct research by selecting a topic and finding information on that topic.	F4
f. Identify people in the community as sources of information.	F4
INFORMED AND CREATIVE USE OF MEDIA AND TECHNOLOGY MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Know that information can be delivered by a variety of technologies.	F5a
b. Be able to use technology for the creative expression of ideas.	F5a
c. Know the difference between factual and imaginary.	F4
d. Understand that a variety of people, such as authors, illustrators, publishers, are involved in the creation and production of books and other media.	F4
GUIDANCE	
PERSONAL DEVELOPMENT MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Develop a positive self-image, personal initiative, and physical independence.	D1b, D3, G2a, G2b
b. Experience security in his/her school environment.	no match
c. Be able to identify and express feelings.	D1b
d. Develop decision-making skills and accept responsibility for his/her decisions.	D3
SOCIAL DEVELOPMENT MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Share experiences and manage school, family and social concerns.	D1, D1a, D3
b. Develop a sense of belonging.	G4a
c. Understand and appreciate the rights of others.	E1a, G3a
d. Understand that other people have feelings.	G3a
EDUCATIONAL DEVELOPMENT MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Realize the meaning and value of learning.	no match
CAREER DEVELOPMENT MODEL LEARNER GOALS: PRIMARY	
1. By the end of the primary level, the student shall have had the opportunity to:	
a. Understand the nature and values of occupations at home, school, and within the community.	no match
b. Develop an awareness of his/her emerging interests and talents and their relationship to occupations.	no match

Nebraska

Documents Utilized

Mathematics and Science Frameworks for Nebraska Schools (March, 1994)
Nebraska Schools Accountability Commission's Draft Report (revised February, 1994)

Background

The state department of education began developing curriculum frameworks in the fall of 1994. Content standards have been completed in agricultural education, business education, mathematics, and science. Standards are in draft form or being written in family and consumer science, foreign languages, industrial technology, social studies, and the visual and performing arts. The goal is to have all currently funded frameworks completed by fall 1996. Standards in language arts and marketing will be developed when funding is available. The curriculum frameworks describe student learning for grades pre-K-5, 6-8, and 9-12 and are voluntary. There are no state assessments.

Nebraska

	McREL CODE
SCIENCE, UPPER ELEMENTARY	
MATTER	
PATTERNS OF CHANGE:	
Investigate physical properties of matter.	F4a
ENERGY:	
Investigate effect of temperature on physical and chemical changes.	F4a
SYSTEMS & INTERACTIONS:	
Explore physical and chemicals interactions of matter.	F4a
SCALE & STRUCTURE:	
Discover the whole equals the weight of the sum of the parts.	F4a
FORCE AND MOTION	
PATTERNS OF CHANGE:	
Investigate the effect of force on motion.	F4a
ENERGY:	
Investigate and communicate properties of heat, light , sound, electricity, and magnetism.	F4a
SYSTEMS & INTERACTIONS:	
Experiment to discover the effect of speed, direction, and friction on motion.	F4a
Explore rate of vibration and resulting sound produced.	F4a
SCALE & STRUCTURE:	
Design a simple machine.	F4a
UNIVERSE	
PATTERNS OF CHANGE:	
Interpret weather maps.	F4a
Observe planets changing position against the patter of stars.	F4a
ENERGY:	
Investigate evaporation and condensation.	F4a
Design and implement a recycling plan.	E1a, F4a
SYSTEMS & INTERACTIONS:	
Observe and communicate the interaction of wind and water on the earth.	F4a
Construct physical models of earth's surface features.	F4a
SCALE & STRUCTURE:	
Investigate the composition of soil/rocks.	F4a
Estimate and compare number of stars seen with unaided eye and telescope.	F4a

Nebraska

	NCEO CODE
DIVERSITY	
PATTERNS OF CHANGE:	
Analyze life cycles.	F4a
Create and evaluate various classification schemes.	F4a
ENERGY:	
Recognize energy is needed for all organisms to live and grow.	F4a
SYSTEMS & INTERACTIONS:	
Connect environmental conditions to species survival.	F4a
SCALE & STRUCTURE:	
Observe organisms microscopically.	F4a
CELLS AND HEREDITY	
PATTERNS OF CHANGE:	
Collect and analyze data on heredity.	F4a
ENERGY:	
Recognize existence of cellular energy.	F4a
SYSTEMS & INTERACTIONS:	
Compare similarities of parents and offspring.	F4a
Distinguish between inherited and learned likenesses.	F4a
SCALE & STRUCTURE:	
Observe microscopic organisms.	F4a
Discover organisms are mostly made up of cells.	F4a
INTERDEPENDENCE	
PATTERNS OF CHANGE:	
Investigate effect of habitat change on organisms.	F4a
ENERGY:	
Analyze food webs.	F4a
SYSTEMS & INTERACTIONS:	
Create an ecosystem and describe interactions.	F4a
Investigate interrelationships of body systems.	F4a
SCALE & STRUCTURE:	
Determine components of specific environments.	F4a
MATHEMATICS, ELEMENTARY (K-6)	
NUMBER SENSE	
ESTIMATION:	
Apply estimation to computation.	F3a
PROBLEM SOLVING:	
Apply problem-solving processes	F2a
TECHNOLOGY:	
Use calculators, computers, and other technology.	F5a
COMMUNICATIONS:	
Discuss number system.	F3a
Describe and evaluate number relationships such as fractions, decimals, and percentages.	F3a
CONNECTIONS:	
Explore real life situations.	F3a
REASONING/LOGIC:	
Justify a solution.	F2a, F3a
MEASUREMENT	
ESTIMATION:	
Compare and describe measurements.	F3a
Estimate measure of mass, length, volume, and time.	F3a

Nebraska

	NCEO CODE
Choose appropriate units.	F3a
PROBLEM SOLVING:	
Explore measurement in real-life situations.	F2a, F3a
TECHNOLOGY:	
Select and use appropriate tools.	F5a
COMMUNICATIONS:	
Express measurements in a variety of units.	F3a
CONNECTIONS:	
Use measurements in other disciplines.	F3a
REASONING/LOGIC:	
Observe attributes using a variety of units.	F3a
Justify chosen unit of measurement.	F3a
SPATIAL RELATIONSHIPS/GEOMETRIC TOPICS	
ESTIMATION:	
Predict properties of shapes.	F2a, F3a
PROBLEM SOLVING:	
Solve problems using shapes and diagrams.	F2a, F3a
Apply perimeter, area, and circumference.	F3a
Explore volume and surface area.	F3a
TECHNOLOGY:	
Explore geometric shapes an solve geometric problems using a variety of technology.	F2a, , F5a
COMMUNICATIONS:	
Identify properties and use appropriate geometric vocabulary.	F3a
CONNECTIONS:	
Explore geometric shapes in the world.	F3a
REASONING/LOGIC:	
Investigate changes of shapes.	F3a
DATA ANALYSIS	
ESTIMATION:	
Predict experimental probabilities.	F2a, F3a
PROBLEM SOLVING:	
Formulate and solve problems that involve collecting and analyzing data.	F2a, F3a
Experiment with probability.	F3a
Make predictions.	F2a, F3a
TECHNOLOGY:	
Use a variety of technology to analyze data and represent it graphically.	F3a, F5a
COMMUNICATIONS:	
Explain inferences and convincing arguments that are based on data analysis.	F1a, F2a, F3a
Describe data using graphic representations.	F3a
Read tables and form conclusions.	F2a, F3a
CONNECTIONS:	
Systematically collect, organize, and interpret data in all disciplines.	F2a, F3a
REASONING/LOGIC:	
Explore concepts of probability.	F3a
PATTERNS AND FUNCTIONS	
ESTIMATION:	
Analyze patterns.	F2a, F3a
PROBLEM SOLVING:	
Represent and solve problems.	F2a, F3a
Apply Venn diagrams to objects and groups.	F3a
TECHNOLOGY:	
Explore patterns.	F3a, F5a

Nebraska

	NCEO CODE
COMMUNICATIONS:	
Describe relationships.	F3a
Investigate using graphs.	F3a
CONNECTIONS:	
Recognize and describe patterns found in the world.	F3a
Explore patterns in art and other disciplines.	F3a, F4b
Explore use of tessellations.	F3a
REASONING/LOGIC:	
Investigate patterns.	F2a, F3a
Explore Venn diagrams.	F3a
ALGEBRAIC TOPICS	
ESTIMATION:	
Estimate expressions using manipulatives.	F3a
PROBLEM SOLVING:	
Solve for an unknown value using manipulatives.	F2a, F3a
TECHNOLOGY:	
Use a variety of technology to explore variables.	F3a, F5a
COMMUNICATIONS:	
Relate manipulative to symbols.	F3a
CONNECTIONS:	
Use real objects as variables.	F3a
REASONING/LOGIC:	
Explore variation in real objects and expressions.	F3a
DISCRETE MATHEMATICS	
Foundations are laid for many discrete topics in the elementary and middle levels. These topics include probability, functions, patterns, sets, and networks.	F3a

New Hampshire

Document Utilized

The CRM Student Outcome Information System (printed by the Center for Resource Management; no date)

Background

In 1993, the legislature passed the New Hampshire Educational Improvement and Assessment Act. The law required the state to define what students should know and be able to do in language arts and mathematics in elementary school, and in language arts, math, science and social studies in middle and high schools. The Center for Resource Management, Inc., a private agency in partnership with the New Hampshire Department of Education Bureau of Special Education Services, has developed the Student Outcome Information System that may be used by New Hampshire public schools. The student-level profiles are designed to help school administrators and instructional staff identify the specific students who are experiencing success or who are at risk.

New Hampshire

THE CRM STUDENT OUTCOME INFORMATION SYSTEM	NCEO CODE
SCHOOL-LEVEL OUTCOME PROFILES	
All of the outcome profiles described below can be produced for the total or a sample of the school population as well as specific populations such as special education students, Chapter 1 students, or students participating in special programs. Outcome results can also be displayed by grade level and for groupings related to gender, ethnicity, disability, ability level, or academic placement.	
ABSENCE, SUSPENSION, RETENTION, AND DROPOUT PROFILES	
Annual absence rates (average number of students absent each day)	A1a
Number and percent of students with more than maximum allowed absences.	A1a
Annual suspension rates--total school and each grade level.	A1b
Number and percent of students suspended (in-school and out-of-school)	
Number of suspension incidents (in-school and out-of-school)	
Average length of suspension (in-school and out-of-school)	
Average number of suspensions per student	
Number and percent of students suspended two or more times	
Annual retention rates (number and percent of students retained in grade or lacking sufficient credits to advance)	no match
Annual dropout rates (number and percent of students dropping out of school)	A1
GRADE PERFORMANCE PROFILES	
Number and percent of students receiving satisfactory or above satisfactory grades in each subject area	F3, F4
Number and percent of students receiving below satisfactory grades in each subject area	F3, F4
Number and percent of students receiving two or more As across subject areas	F3, F4
Number and percent of students receiving two or more Ds across subject areas	F3, F4
Number and percent of students receiving two or more Fs across subject areas	F3, F4

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New Hampshire

	NCEO CODE
TEST AND ASSESSMENT PROFILE	
Student progress and achievement on specific tests and assessments.	A2c
LONGITUDINAL OUTCOME REPORTS (second year and thereafter)	
Annual comparisons of absence, suspension, retention, and dropout rates	A1a
Annual comparisons of student grade performance for each subject area and each grade level.	no match
Annual comparisons of anticipated and achieved percentiles on standardized tests.	no match
STUDENT-LEVEL OUTCOME REPORTS	
The Student-Level Profiles are designed to help school administrators and instructional staff identify the specific students who are experiencing success or who are at risk. Student outcome data can be sorted to produce individual student lists representing specific populations--grade level, gender, disability, special program, ability level, or academic grouping.	
INDIVIDUAL STUDENT LISTS	
Students with maximum number of allowed absences	A1a
Students involved in two or more disciplinary actions or suspension incidents	E1b
Students with above satisfactory grades in two or more subject areas	F3, F4
Students with below satisfactory grades in two or more subject areas	no match
Students who withdrew from school by reason from withdrawal	A1b
Students retained in grade/lacking sufficient credits to advance by grade level	no match
Students performing above the level anticipated on tests/assessments	F3, F4
Students performing below the level anticipated on tests/assessments.	F3, F4

New Mexico

Document Utilized

New Mexico Competency Frameworks (September, 1992)
New Mexico Standards for Excellence Student Outcomes Literacies and Competency Frameworks (no date)

Background

In September 1992, the state board of education adopted competency frameworks that spell out, in broad terms, what students should know and be able to do in key subjects at the end of 12th grade. In November 1992, the state board also adopted "standards for excellence" that broadly define the literacies, attitudes, and attributes students should know and be able to do upon graduation. Both the competency frameworks and standards for excellence are mandatory and are part of state board of education regulations. The competency frameworks apply to grades K-12; they do not describe student learning at specific grades. The state is currently developing benchmarks for grades 4 and 8. The standards for excellence describe student learning at grade 12.

New Mexico

	NCEO CODE
STANDARDS FOR EXCELLENCE: STUDENT OUTCOMES LITERACIES (MARCH 1993) AND COMPETENCY FRAMEWORKS	
The standards for Excellence Student Outcomes comprise both literacies and attitudes/ attributes. The competency frameworks (in brown [plain text]) are correlated to literacy outcomes (in blue [bold type]). It is our belief that the attitudes and attribute outcomes are embedded through the curriculum.	
KNOWLEDGE, UNDERSTANDING AND APPLICATION OF THE STRUCTURE AND USE OF THE ENGLISH LANGUAGE AS WELL AS OTHER LANGUAGES;	
Develop decision-making and communication skills, including the ability to express choices related to health.	C1, F1a
Speak and write using the conventions of correctness, and for a variety of audiences and purposes.	F1a
Use writing, reading, speaking and listening as tools for learning in all subject areas.	F1a, F3b, F3c
Learn to communicate mathematically, students should learn to use mathematical language to clarify, refine, and consolidate their thinking so that they can read, write and discuss ideas.	F3a
Communicate proficiently in the language studied, through listening, speaking, reading, and writing in a variety of situations and for a variety of purposes.	F4
Demonstrate an awareness that the means of expressing ideas and feelings differ from language to language, reflecting the attitudes of a culture.	F4
Understand that music is a vehicle for communication and self-expression.	F4b
Develop and use communication skills.	F1
KNOWLEDGE, UNDERSTANDING AND PRACTICAL APPLICATION OF TECHNOLOGY, SCIENCE, MATHEMATICS, SOCIAL STUDIES, THE HUMANITIES, AND THE PRACTICAL ARTS AND THEIR INTERCONNECTIONS THROUGH THE MODES OF READING, WRITING, OBSERVING, SPEAKING, LISTENING, MOVEMENT, AND THE ARTS;	
Demonstrate media skills through manipulation of various materials and techniques, through care of tools, familiarity with a wide variety of artistic materials and techniques, and safety in the classroom.	C1a, F4b
Read, write, and perform arithmetic and mathematical operations, listen and speak in the medium in which business is conducted.	F3a, F3b, F3c

New Mexico

	NCEO CODE
Learn to value mathematics. Students need experiences related to the cultural, historical, scientific, and technological evolution of mathematics so that they can appreciate the role of mathematics in the development of a society and explore, apply and exhibit relationships among mathematics and the physical and life sciences, the social sciences and the humanities.	F3a, F4a, F4b
Estimation, number sense and numeration, concepts of whole numbers, operations, computation, geometry and spatial sense, measurement, statistics and probability, fractions and decimals, patterns and relationships.	F3a
Understand relationships between music and history.	F4a, F4b
Using topics from all science disciplines:	F4a
Understand energy as it applies to potential sources, forms, conversions, living systems, applications and their effects.	F4a
Understand balance and change through time in natural entities and systems, including different kinds of change.	F4a
Understand structure, for example kinds of structure, organization, relationships among parts and how at different scales different properties are revealed.	F4a
Understand systems and interactions between systems, within systems and subsystems, and among objects.	F4a
Understand that our society and its values are affected by science and technology.	F4a
CREATIVE AND HIGHER ORDER THINKING SKILLS AND PERSONAL ATTITUDES AND ATTRIBUTES LEADING TO ETHICAL DECISION MAKING TO MEET THE CHALLENGES OF LIFE;	
Develop the capacity to make thoughtful judgments in art.	F4b
Understand complex interrelationships.	F2a
Recognize the power to reach one's personal potential by making positive health and life choices.	C1, C2, D
Value family relationships and appreciate the role of each person in creating a positive family environment.	D1a
Value the role of moderation in avoiding excess or deficiency states, including food and exercise.	C1, C2
Understand that every individual human being is valuable and unique.	G3
Respond personally, analytically and critically to written and spoken language.	F1a, F2a, F3b
Recognize, analyze and respond to propaganda.	F2a
Learn to reason mathematically. Students need to make conjectures, gather evidence, and build arguments to support fundamental mathematical concepts.	F3a
Evaluate another culture fairly and from an informed knowledge base.	no match
Apply knowledge of musical elements (rhythm, melody, harmony, dynamics, tone, color, form and style) when learning and performing music.	F4b
Use critical thinking skills to discuss and evaluate music.	F2a, F4b
Evaluate and accept the risks and safety factors that may affect physical activity as an important part of one's lifestyle.	C1, C2
Commit to physical activity as an important part of one's lifestyle.	C1b
Understand, apply and evaluate scientific principles (i.e., biomechanical, psychological, and physiological) to learn and improve skills and participate successfully.	F4
Demonstrate an understanding from which informed attitudes are developed about the potential benefits and hazards associated with various technologies.	F4
Demonstrate creative approaches to problem-solving.	F2a
Develop individual responsibility for the democratic system.	E1a
INTEGRATING PREVIOUS EXPERIENCES AND KNOWLEDGE WITH NEW EXPERIENCE AND KNOWLEDGE:	
Develop the capacity to personalize and experience art.	F4b
Understand the role of art in history and in various cultures.	F4b
Manage change and diversity.	G, G3b

New Mexico

	NCEO CODE
Use a variety of reading and listening strategies and understand when each is appropriate.	F1, F3b
Take risks, knowing that making errors is part of learning.	F1, F3b
Develop music skills through singing, moving, playing instruments, listening, creating, reading and writing music.	no match
Develop aesthetic sensitivity through music.	F4b
Demonstrate knowledge of skill performance, rules, strategy, and terminology for at least three sports and activities.	F4b
Demonstrate intermediate or advanced competence in at least one activity from three of the six categories: aquatics, dance, outdoor pursuits, individual activities/sports, and team sports.	C1b
Demonstrate science information and skills as applied to real world problems and situations.	F4a
Understand historical connections among past, present and future.	F4a
IDENTIFYING, ACCESSING, EVALUATING, AND UTILIZING INFORMATION;	
Develop visual awareness and work with principles and elements of design.	F4b
Self-assess and self-correct.	G2c
Analyze tasks, adjust tasks.	F2a
Identify, organize, plan and allocate resources.	no match
Acquire knowledge of history and philosophy, of rules and terminology; assess strategy and tactics of the activity.	F4a
Develop skills in making nutritious choices when buying, preparing, and eating food.	C1a
Develop skills in emergency care and in the prevention of intentional and unintentional injuries.	C2a
Locate and use information for specific purposes and from a variety of sources.	F4
Read and listen for a variety of purposes, including the gathering of information, the extending of experience and the achievement of pleasure.	F1, F3b
Become mathematical problems solvers. To develop these abilities, students need the experience of working with diverse problem-solving situations.	F2a, F3c
Recognize and respond to a variety of music.	F4b
Develop and understanding of and respect for various cultures through music.	F4b, G3b
Establish personal fitness goals using the results of fitness assessments to establish goals in a personal program of physical activity.	C3a
Accept differences between personal characteristics and the idealized body images and elite performance levels portrayed in the media.	no match
Feel empowered to maintain and improve physical fitness motor skills and knowledge about physical activity.	C1b
Develop a multicultural perspective that respects the dignity and worth of all people.	G3b
Interpret and use map and globe skills, graphs, charts, time-lines, and diagrams.	F4a
Understand the environment as a complex and fragile system, with limited resources, which is impacted by human decision and activity.	F4a
Demonstrate science process skills.	F4a
KNOWLEDGE AND UNDERSTANDING OF THE SOCIAL VALUE, DIGNITY, AND NECESSITY OF EARNING A LIVING;	
Manage career decisions/goal setting.	D1b
Demonstrate work ethics.	E1c
Think creatively, make decisions and solve problems in work situations.	F2a
Value cooperation and responsible competition in learning, play and work.	D, G4b
Develop and practice appropriate ethics, self-control, self-discipline, commitment and self-esteem.	E1c, G1, G2
Understand vocational and avocational possibilities.	no match
WORKING COOPERATIVELY AND ASSUMING RESPONSIBILITIES AS MEMBERS OF A TEAM;	
Respect individual expression and express one's self through art.	F4a, G3a

New Mexico

	NCEO CODE
Participate in or lead a group process.	G4b
Teach others new skills.	E2b
Work without supervision.	D1b, D3
Negotiate toward agreements.	no match
Generate a pride in achievement, appreciation of self and team effort (cooperation) in achievement--hard work and fair play--and respect for the ability of others.	G2a, G4b
Use language to share experiences and gain insight into their own and others lives.	F1, G3, G4
Demonstrate an appreciation for their own and other languages.	no match
Demonstrate a respect for differences, such as cultural, linguistic, societal, and individual diversity.	G3
Actively participate in making music alone and with others.	F4b
Exhibit socially desirable and acceptance behaviors in the areas of respect for others, assuming responsibility, leadership, and contributing to the group.	D, F4b, G3
Demonstrate appropriate and safe laboratory skills and practices.	C2a, F4a
Understand what is required of citizens in a democracy.	F4a
Develop social and political participation skills.	F4b
MANAGING PERSONAL AND FINANCIAL RESOURCES APPROPRIATELY;	
Work with a variety of technologies and systems to communicate.	F1, F5a
Develop the ability to set short-range goals.	D1b
Integrate/evaluate the value of lifetime applications of an activity.	no match
Become confident in their own ability. Students should view themselves as capable of using their growing mathematical power to make sense of new problem situations in the world around them.	F3a, G2b
Select and participate in appropriate physical activities by analyzing personal characteristics.	C1b, C3a
Willingly participate in a progression of physical activities which contribute to the attainment of personal goals and the maintenance of wellness.	C3a
Understand relationships between society, its laws, and institutions.	F4a
Demonstrate economic literacy.	D
UNDERSTANDING OF THE HISTORICAL EVOLUTION OF THE DEMOCRATIC PRINCIPLES OF THE CONSTITUTIONAL GOVERNMENT OF THE UNITED STATES;	
Display responsibility, self-esteem, sociability, integrity and honesty.	D, G2,
Apply concepts in consumer health, including the effects of consumer demands and advertising on health.	C1
Use other languages to understand and appreciate all aspects of a culture, including literature, philosophy, the arts, geography, social customs, history, government, and the sciences.	no match
Develop and understanding of worldwide relationships of all sorts between and among nations	F4a
APPLICATION OF THE PRINCIPLES AND PROCESSES OF OUR REPRESENTATIVE FORM OF GOVERNMENT AND UNDERSTANDING HOW THEY AFFECT INDIVIDUALS, COMMUNITIES, TRIBES, STATE, NATIONS, AND THE WORLD;	
Act to promote a healthy school and community through school projects and partnerships with community agencies.	E1a
Act to create a healthy global environment.	no match
Act to respect differences in mental and physical abilities of people due to various handicapping conditions.	G3b
Appreciate and respect one's own language, culture, and literature and the languages, cultures and literature of others.	G3b
Demonstrate an understanding of the effects that language can have on behavior and behavior on language.	F1
Understand the complex nature of culture.	F4a
Demonstrate geographic understanding using the five fundamental themes of geography	F4a

New Mexico

	NCEO CODE
(location, place, movement, human interaction with environment, and regions).	
UNDERSTANDING OF THE DIFFERENCES AMONG VARIOUS FORMS OF GOVERNMENT;	
Recognize the importance of multilingualism and multiculturalism in a global economy.	F4a
Develop and use research and study skills. SS	F4
Develop a knowledge base of United States and New Mexico history, geography, economy, politics and arts.	F4a
UNDERSTANDING AND APPLICATION OF THE BASIC ELEMENTS OF HEALTH MAINTENANCE;	
Know how to maintain one's own health, including concepts of personal hygiene, rules of safety, injury prevention, rehabilitative methods, and use of medical products.	C1a, C2c, C2d
Understand the physical, mental, emotional, and social aspects of human growth and development, including stages of development, human sexuality, child care/parenting and aging.	F4
Understand health practices that contribute to lifelong wellness and prevention of conditions such as heart and lung diseases, diabetes, high blood pressure, and cancer.	C1
Understand how to protect oneself and others from infectious diseases, including HIV/AIDS.	C2c
Understand how to protect oneself and others from harmful effects of alcohol, tobacco, and other legal and illegal drugs.	C2d
Develop stress management, coping and refusal skills, and the ability to handle peer pressure.	no match
Demonstrate, practice and enjoy exercises that promote lifelong fitness, including cardiovascular fitness, muscular endurance and strength, and flexibility.	C2b
Learn and understand the concepts of safety, sportsmanship, nutrition and health to maintain an acceptable level of physical fitness essential for participation.	A2b, C2b
Develop large and small motor skills needed for making music through body movements.	C3a, F4b
Exhibit greater self confidence, self respect, self awareness, and self esteem.	G2a, G2b, G2c
Demonstrate and practice critical thinking, problems resolution and decision making skills.	F2a
STANDARDS FOR EXCELLENCE: STUDENT OUTCOMES, ATTITUDES AND ATTRIBUTES	
New Mexico students are successful, productive members of society as demonstrated by:	
a. A desire to learn and perform at their full potential;	no match
b. A positive self concept as evidenced by constructive expression of one's own physical, emotional, and mental uniqueness, and capabilities, strengths, talents, goals, and aspirations.	G2a, G2b
c. A respect for self and others, based on the recognition of individual similarities and differences, opinions, cultures, and concerns of others;	G3a, G3b
d. A respect for the authority, responsibilities, and privileges protected by the United States Constitution and Bill Of Rights;	E1c
e. An appreciation of the world's literature, art, music, and cultural attributes, particularly those that make our state and nation great and unique;	F4b
f. Personal and interpersonal skills necessary to function successfully as responsible members within families, workplace, communities, tribes, nations, and the world;	G4
g. A willingness to strive toward the attainment of positive personal and academic goals;	no match
h. Assuming personal responsibility for shaping their own future;	D
i. Making decisions which promote good health; and	C1
j. A respect for life and the environment based on the recognition that all life is interdependent.	no match

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New York

Document Utilized

Learning Centered Curriculum and Assessment for New York State (1991)

Background

The *Learning Centered Curriculum and Assessment for New York State* specifies student skills, characteristics, and capabilities that are to be incorporated in curriculum frameworks. These curriculum frameworks (expected to be completed in 1995) will not be developed by grade level; instead they will specify standards that are developmentally appropriate for broad levels of student learning at the elementary, middle, and commencement or graduation levels. The frameworks will include: areas of study (kinds of knowledge to be acquired), core concepts (major ideas to be understood), key competencies (important skills to be developed), and performance indicators (illustrations of how students can demonstrate their knowledge, skills, and understanding). The board of regents has yet to decide whether the frameworks will be mandatory or voluntary.

New York

GOALS		NCEO CODE
1.	Each student will master communication and computation skills as a foundation to:	F1, F3a
1.1	Think logically and creatively.	F2a
1.2	Apply reasoning skills to issues and problems.	F2a
1.3	Comprehend written, spoken, and visual presentations in various media.	F1, F3b
1.4	Speak, listen to, read, and write clearly and effectively in English.	F1, F1a
1.5	Perform basic mathematical calculations.	F3c
1.6	Speak, listen to, read, and write at least one language other than English.	F4a
1.7	Use current and developing technologies for academic and occupational pursuits.	F5a
1.8	Determine what information is needed for particular purposes and be able to use libraries and other resources to acquire, organize, and use that information for those purposes.	F4
2.	Each student will be able to apply methods of inquiry and knowledge learned through the following disciplines and use the methods and knowledge in interdisciplinary applications:	F4
2.1	English language arts.	F4a
2.2	Science, mathematics, and technology.	F3a, F4a
2.3	History and social science.	F4a
2.4	Arts and humanities.	F4b
2.5	Language and literature in at least one language other than English.	F4a
2.6	Technical and occupational studies.	F4
2.7	Physical education, health, and home economics.	F4a
3.	Each student will acquire knowledge, understanding, and appreciation of the artistic, cultural, and intellectual accomplishments of civilization, and develop the skills to express personal artistic talents. Areas include:	F4b
3.1	Ways to develop knowledge and appreciation of the arts.	F4b
3.2	Aesthetic judgments and the ability to apply them to works of art.	F4b
3.3	Ability to use cultural resources of museums, libraries, theaters, historic sites, and performing arts groups.	F4b
3.4	Ability to produce or perform works in at least one major art form.	F4b
3.5	Materials, media, and history of major arts forms.	F4b
3.6	Understanding of the diversity of cultural heritages.	F4b
4.	Each student will acquire and be able to apply knowledge about political, economic and social institutions and procedures in this country and other countries. Included are:	F4a

New York

		NCEO CODE
4.1	Political, economic, and social processes and policies in the United States at national, State and local levels.	F4a
4.2	Political, economic, and social institutions and procedures in various nations; ability to compare the operation of such institutions; and understanding of the international interdependence of political, economic, social, cultural and environmental systems.	F4a
4.3	Roles and responsibilities the student will assume as an adult, including those of parent, home manager, family member, worker, learner, consumer and citizen.	F4a
4.4	Understanding of the institution of the "family," respect for its function, diversity, and variety of form, and the need to balance work and family in a bias-free democratic society.	D1a
5.	Each student will respect and practice basic civic values and acquire and use the skills, knowledge, understanding, and attitudes necessary to participate in democratic self-government. Included are:	E1a, F1c, F4a
5.1	Understanding and acceptance of the values of justice, honesty, self-discipline, due process, equality, and majority rule with respect for minority rights.	F4a
5.2	Respect for self, others, and property as integral to a self-governing, democratic society.	F4a, G3a
5.3	Ability to apply reasoning skills and the process of democratic government to resolve societal problems and disputes.	F2a, F4a
6.	Each student will develop the ability to understand, appreciate, and cooperate with people of different race, sex, ability to understand, appreciate, and cooperate with people of different race, sex, ability, cultural heritage, national origin, religion, and political, economic, and social background, and to understand and appreciate their values, beliefs, and attitudes.	G3b, G4b
7.	Each student will acquire knowledge of the ecological consequences of choices in the use of the environment and natural resources.	F4a
8.	Each student will be prepared to enter upon post-secondary education and/or career-level employment at graduation from high school. Included are:	no match
8.1	The interpersonal, organizational, and personal skills needed to work as a group member.	G4b
8.2	The ability to use the skills of decision making, problem solving, and resource management.	F2a
8.3	An understanding of ethical behavior and the importance of values.	D, E
8.4	The ability to acquire and use the knowledge and skill to manage and lead satisfying personal lives and contribute to the common good.	no match
9.	Each student will develop knowledge, skills and attitudes which will enhance personal life management, promote positive parenting skills, and enable functioning effectively in a democratic society. Included are:	E1a, E1c
9.1	Self-esteem	G2a, G2b
9.2	Ability to maintain physical, mental, and emotional health.	C1, C2, G
9.3	Understanding of the ill effects of alcohol, tobacco, and other drugs and of other practices dangerous to health.	C2d
9.4	Basic skills for living, decision making, problem solving, and managing personal resources to attain goals.	F2a
9.5	Understanding of the multiple roles adults assume, and the rights and responsibilities of those roles.	no match
9.6	Basic skills for parenting and child development.	no match
10.	Each student will develop a commitment to lifetime learning and constructive use of such learning, with the capacity for undertaking new studies, synthesizing new knowledge and experience with the known, refining the ability to judge, and applying skills needed to take ethical advantage of technological advances.	no match

New York

	NCEO CODE
ESSENTIAL SKILLS AND DISPOSITIONS	
A person who is prepared to live well, to work productively, and to participate effectively in civic and political life in a democracy exhibits the following skills and dispositions. An effective curriculum develops these essential skills and dispositions in every student across all subject areas.	
A. Managing Resources Resources include time, fiscal and material means, and human qualities and endeavors which are needed to carry out activity.	
1. Identifies, organizes, plans, and allocates resources–time, fiscal, material, and human–to accomplish goals.	no match
2. Monitors, reflects upon, and assesses one's own progress and performance.	no match
B. Managing Information Information management focuses on the ability to access and use information from various sources, such as other people, libraries, museums and other community resources.	
1. Acquires and evaluates information using a wide variety of sources and technologies.	F2a, F5a
2. Manages, organizes, interprets and communicates information for different purposes.	F1, F2a
3. Accesses and processes information acquired from data bases, computer networks and other emerging information systems.	F5a
4. Appreciates and gains understanding of new developments in information technology.	F5a
5. Selects and analyzes information and communicates the results to others using written, graphic, pictorial, or multimedia methods.	F2a, F3b, F5a
C. Developing Personal Competence Personal competence includes values, self-management, and the ability to plan, organize, and take independent action.	
1. Exhibits integrity and honesty.	D, E1
2. Takes initiative and personal responsibility for events and actions.	D1b
3. Exhibits ethical behavior in home, school, workplace, and community.	E1
4. Regards oneself with esteem and others with respect, with intelligent and humane regard for cultural differences and different abilities.	G2a, G3a, G3b
5. Balances personal, family, and work life.	no match
D. Developing Interpersonal and Citizenship Competencies	
1. Can analyze new group situations.	F2a, G4b
2. Participates as a member of a team. Works cooperatively with others and contributes to the group with ideas, suggestions, and effort.	A2a, D1a, G4b
3. Teaches others. Helps others learn.	E2b
4. Exercises leadership. Communicates through feelings and ideas to justify a position; encourages, persuades, convinces, or otherwise motivates an individual or group.	E2b, F1
5. Negotiates and works toward agreements that may involve exchanging resources or resolving divergent interests.	G4
6. Understands, uses, and appreciates multiple perspectives. Works well with males and females and with people from a variety of ethnic, social, or educational backgrounds.	G3b, G4
7. Joins as an informed participant in community, civic, and political life.	E1a
E. Working With Systems And Technology Systems skills include the understanding and ability to work with and within natural and constructed systems. Technology is the process and product of human skill and ingenuity in designing and making things out of available resources to satisfy personal and societal needs and wants.	
1. Understands systems. Knows how social, organizational, biological, and technological systems work and operates effectively within them.	F5a, G4
2. Monitors and corrects performance. Distinguishes trends, predicts impact of actions (inputs) on system operations, uses output to diagnose deviations in the functions (processes of a system), and takes the necessary action (feed-back) to correct performance.	F2a

New York

	NCEO CODE
3. Designs and improves systems. Makes suggestions to improve existing systems and develops new or alternative ones.	F5a
4. Selects technology. Judges which set of procedures, tools, apparatus, or machines, including computers and their programs, will produce the desired results.	F2a, F5a
5. Applies technology to tasks. Understands the overall intent and the proper procedures for using tools, setting up and using apparatus, and operating machines, including computers and their programming systems.	F5a
F. Developing Entrepreneurial Skills Entrepreneurial skills include both the cognitive abilities needed to make informed judgments, leading to creative and effective activity, and the disposition to meet challenges as varied as public speaking, musical performance, physical activity, and many more. Such skills include exploring the unknown and challenging conventions.	
1. Makes considered and informed judgments.	F2a
2. Meets and accepts challenges.	no match
3. Makes considered and informed assertions; makes commitments to personal visions.	no match
4. Acts appropriately when the outcome is uncertain.	no match
5. Responsibly challenges conventions and existing procedures or policy.	no match
6. Uses self-evaluation to adjust and adapt.	no match
7. Experiments creatively.	no match
G. Thinking, Solving Problems, Creating The thinking and problem-solving category includes observing, experimenting, and drawing upon elements listed under the other essential skills categories. Creativity can be expressed through different types of intelligences such as logical/sequential, visual/spatial, musical, kinesthetic, and interpersonal.	
THINKING	
1. Makes connections; understands complex relationships and interrelationships.	F2a
2. Views concepts and situations from multiple perspectives in order to take account of all relevant evidence.	F2a
3. Synthesizes, generates, evaluates, and applies knowledge to diverse, new, and unfamiliar situations.	F2a
4. Applies reasoned action to practical life situations.	F2a
5. Imagine roles not yet experienced.	no match
SOLVING PROBLEMS	
6. Designs problem-solving strategies and seeks solutions.	D1b, F2a
7. Asks questions and frames problems productively, using methods such as defining, describing, gathering evidence, comparing and contrasting, drawing inferences, hypothesizing, and posing alternatives.	F2a
8. Re-evaluates existing conventions, customs, and procedures in solving problems.	F2a
9. Imagines, plans, implements, builds, performs, and creates, using intellectual, artistic, dexterous, and motor skills to envision and enact.	D1b
10. Chooses ideas, procedures, materials, tools, technologies, and strategies appropriate to the task at hand.	F5a
11. Adjusts, adapts, and improvises in response to the cues and restraints imposed by oneself, others, and the environment.	no match
12. Makes decisions and evaluates their consequences.	no match
CREATING	
13. Translates cognitive images and visions into varied and appropriate communication of ideas and information, using the methods of one or more disciplines--Imagining	F4b
14. Originates, innovates, invents, and recombines ideas, productions, performances, and/or objects--Creating.	F4b
15. Responds aesthetically--Appreciating.	F4b

North Carolina

Documents Utilized

Circle of Childhood (August, 1990)
Appendix C, Communication Skills Proficiencies: Grade Level Benchmarks (1993)
Overview: Mathematics K-8 (no date)
Competency Goals and Objectives, Information Skills (revised 1992)
Competency Goals and Objectives, Computer Skills (revised 1992)

Background

Since 1990, the state has had mandatory standards (called the "standard course of study") in computer skills, English/language arts, healthful living, information skills, mathematics, science, social studies and vocational education. The standards are grade-specific for grades K-12. Benchmarks in different skill areas have been developed as developmentally appropriate indicators of progress toward proficiency in these goals and objectives. The benchmarks are designed to enable teachers to assess student progress over time and in a variety of situations rather than to make promotion decisions. In 1989, the State Board of Education approved the piloting of a new curriculum, *Circle of Childhood*, which includes goals and objectives for children ages 3-5.

North Carolina

	NCEO CODE
MATHEMATICS PROFICIENCIES, FOURTH GRADE	
Reads, writes and uses numbers in a variety of ways	F3a, F3b, F3c
Creates various models to explain, illustrate, compare and order numbers in the place value system, including decimals, fractions and mixed numbers	F3a
Reads, writes and uses numbers in a variety of ways	F3a
Creates and explains equivalent fractions and relates fractions to decimals	F3a
Uses mental math and approximation, making judgments about when rounding, estimation and exact answers are appropriate	F3a
Identifies and uses patterns in numerical sequences, geometry, data collection, and arithmetic operations	F2a, F3a
Uses appropriate vocabulary and models to identify components and properties of geometric figures	F3a
Explains ideas and relates models, pictorial representations, symbolic language and examples in the environment	F3a
Estimates outcomes, solves problems, and determines reasonableness of results	F2a, F3a
Selects appropriate tools and units within the same system	F3a
Creates and solves problems with time, money, and other units of measurement	F3a
Communicates an understanding of problems and uses a variety of strategies in solving them	F1, F3a
Formulates questions, gathers, organizes, displays, and interprets data	F3a
Creates and uses ordered pairs	F3a
Models and computes using all four operations at prescribed levels of competence	F3a
Memorizes multiplication facts and relates division facts to multiplication	F3a
COMPETENCY GOALS AND OBJECTIVES INFORMATION SKILLS	
GOAL 1: The learner will experience a wide variety of reading, listening, and viewing resources to interact with ideas in an information-intensive environment.	F1, F3b
Objective 1.1: The learner will explore reading, listening, viewing sources and formats.	F1, F3b, F5a
FOCUS:	
Participate in read-aloud, storytelling, and booktalking experiences	A2a, F3b
Identify characteristics of various genres	F4b

North Carolina

	NCEO CODE
Acknowledge ownership of ideas in a variety of formats	F4b
Identify elements of composition	F4b
Identify characteristics of various media formats	F4b
Investigate potential sources of information outside the school	F4b
Select and use sources and formats independently	F4b
Objective 1.2: The learner will identify criteria for excellence in design, content, and presentation of information and formats.	F2a, F4
FOCUS:	
Identify standards of excellence for judging media resources	F2a, F4
Apply identified standards to a variety of resources	F2a, F4
Develop and support personal standards for selecting resources for information needs and enjoyment	F4
Objective 1.3: The learner will critique information sources and formats	F4
FOCUS:	
Analyze the merits of literary and design presentations	F2a, F4
Assess reliability, relevance, and integrity of resources	F2a, F4
Recognize the power of the media to influence	F4
Determine usefulness of resources for instructional and personal needs	F4
Objective 1.4: The learner will relate ideas and information to life experiences	F4
FOCUS:	
Describe own cultural heritage and environment	F4
Collect information about diverse cultures, environments, and peoples	F4
Relate similarities and differences to personal life experiences	F4
Identify contributions of individuals and cultures	F4
Recognize how the presentation of information and ideas is influenced by social, cultural, political, and historical events	F4
Objective 1.5: The learner will communicate reading, listening, and viewing experiences	F1, F4
FOCUS:	F1
Apply communications processes effectively	F4
Produce media in various formats based on reading, listening, viewing experiences	F4
Credit sources used in communicating reading, listening, viewing experiences	F2a, F4
GOAL 2: The learner will identify and apply strategies to access, evaluate, use, and communicate information for learning, decision-making, and problem-solving	F4
Objective 2.1: The learner will explore research processes that meet information needs.	F4
FOCUS:	
Acknowledge that there are a variety of reasons for seeking information--curricular pursuits, personal interests, problem solving and decision making	F4
Explore print, electronic, human, and community reference sources	F4, F5a
Recognize that a systematic approach is more productive than a random approach	F4
Describe several research process models	F4
Objective 2.2: The learner will engage in research process to meet information needs.	F4
FOCUS:	
Develop a search strategy:	F4
define and analyze the task	F4
determine format of the end product	F4
identify known and unknown information	F4
establish personal goals for the task	F4
select the most appropriate model for the task	F4
prepare a plan	F4

North Carolina

	NCEO CODE
Access Information:	F4
identify resources	F4
gather information	F4
credit sources	F4
Critique Information:	F2a, F4
verify reliability of the sources	F4
analyze and synthesize information	F4
determine further needs, if any	F4
revise/restructure the search	F4
outline information to be used	F4
Use Information:	F4
follow a prescribed procedure of developing products	F4
create, produce and/or present a final product	F4
credit sources of information	F4
Evaluate the Process and the Product:	F4
assess the extent to which the process was appropriate	F4
appraise the technical quality of the product	F4
determine how well the product communicated information to the audience	F4
COMPETENCY GOALS AND OBJECTIVES: COMPUTER SKILLS	
GRADE LEVEL: FOUR	
GOAL 1: The learner will understand important issues of a technology-based society and will exhibit ethical behavior in the use of computer technology.	D, F5a
1.1 Identify the ways in which technology has changed the lives of people in North Carolina.	F4a
1.2 Identify computers as tools for accessing information.	F5a
1.3 State that violation of the copyright law is a crime.	F4
GOAL 2: The learner will demonstrate knowledge and skills in using computer technology.	F5a
2.1 Demonstrate proper keyboarding techniques for keying all letters.	F5a
2.2 Use a word processing program to edit a paragraph and save changes.	F5a
2.3 Use a word processing program to enter a paragraph into the computer and print it.	F5a
2.4 Describe the difference between a print database and a computer database.	F5a
2.5 Use commercial software in content areas.	F5a
COMMUNICATION SKILLS PROFICIENCIES: GRADE LEVEL BENCHMARKS	
READING, GRADE FOUR	
CHARACTERISTICS OF THE READER: EXHIBITS THE ATTITUDES, HABITS, AND DISPOSITIONS OF A READER.	
Recognizes reading as a major source of information.	F3b
Describes personal reactions to narratives, biographies, and autobiographies.	F3b
Offers reasons for the feelings provoked by a text.	F3b
READING STRATEGIES: USES ONE OR MORE OF THE FOLLOWING STRATEGIES AS APPROPRIATE TO CONSTRUCT MEANING FROM TEXT.	
Interprets new words by reference to suffixes, prefixes, and meaning of word parts.	F3b
Uses strategies of sampling, predicting, confirming, and self-correcting quickly, confidently, and independently.	F3b
Adjusts reading pace to accommodate purpose, style, and difficulty of material.	F3b
Formulates questions and finds relevant informational materials.	F3b
Checks for accuracy of information by using a variety of sources.	F3b

North Carolina

	[illegible] CODE
Use print and electronic directories such as tables of contents, index, or telephone directories to locate information.	F3b
Select books and other materials that best suit purpose.	F3b
Questions to assess point of view.	F3b
Organizes and summarizes information by using a technique such as a graphic organizer.	F3b
READING COMPREHENSION: CONSTRUCTS MEANING FROM LITERARY, INFORMATIONAL, AND PRACTICAL TEXTS.	
Reads literary, informational, and practical text.	F3b
Reads materials on a variety of topics beyond personal experiences.	F3b
Recognizes the characteristics of narrative text.	F3b, F4b
Recognizes relatedness and sufficiency of details in narrative text.	F3b
Discusses motives of characters as evidenced in the text.	F3b, F4b
Recognizes simple themes related to personal experience.	F3b, F4b
Makes inferences and draw conclusions from informational texts and stories beyond personal experiences.	F4b
Follows written instructions.	F3b
Recognizes that authors and illustrators have individual voices and styles.	F4b
Compares oral and written directions.	F3b
Analyzes the structure of an informational selection.	F3b
WRITING	
GRADE FOUR	
CHARACTERISTICS OF THE WRITER: POSSESSES THE ATTITUDES, HABITS, AND DISPOSITIONS OF A WRITER.	
Writes for extended periods of time.	F3c
Selects best pieces of writing and explains reasons for selection.	F3c
Evaluates writing against external criteria.	F3c
Shares own written work with peers.	F3c
Offers reasons for feelings evoked by the writing of others.	F3c
Creates characters, settings, problems, events from outside personal environment.	F3c
Uses a personal handwriting style that meets most handwriting needs.	F3c
COMPOSING PROCESS: USES ONE OR MORE OF THE FOLLOWING STRATEGIES TO WRITE LITERARY, INFORMATIONAL, AND PRACTICAL TEXTS.	
Understands and uses stages in the process of writing with direct teacher support.	F3c
Recognizes errors in own and others' writing.	F3c
Makes comments about and gives suggestions for adding to another's writing.	F2a, F3c
Revises by sequencing events and ideas in logical order.	F3c
Experiments to combine sentences.	F3c
*Edits written work for errors in sentence formation, usage, mechanics, and spelling (See Editing Proficiencies for Grade 4).	F3c

Ohio

Documents Utilized

Prekindergarten Through Grade 12 Standards for Ohio Schools (March, 1994)

Background

In 1989, the legislature required the state board of education to establish a model competency-based education program for grades 1-12 in math, reading, and writing. Science and social studies were added later. The law permitted the state board to develop standards for other subjects. Ohio has developed curriculum frameworks for mathematics, reading, science, social studies, and writing. Standards in comprehensive health and physical education, fine arts, and second languages are under development. These frameworks are voluntary for school districts, but are tied to a new statewide testing system.

Ohio

LEARNING OUTCOMES FOR FOURTH GRADE	NCEO CODE
WRITING	
Each activity direction will be constructed to elicit two of the following different purposes (modes) for writing: a long pieces such as a fictional or personal experience narrative, or an informational piece (report), and a shorter piece such as a communication (friendly letter, invitation, thank-you note, letter to the editor, directions or a summary [retelling]).	
1. Given an assigned activity direction intended to elicit two of the above modes of writing, the learner will use the writing process to make the intended message clear, as evidenced by:	
a. A response that stays on topic.	F3c
b. The use of details to support the topic.	F3c
c. An organized and logical response that flows naturally and has a beginning, middle and end.	F3c
d. The use of a variety of words.	F3c
e. The use of a variety of sentence patterns.	F3c
f. A response that shows an awareness of word usage (vocabulary, homonyms, and words in context).	F3c
g. A response that shows an awareness of spelling patterns for commonly used words.	F3c
h. Legible writing in print or cursive.	F3c
i. The correct use of capital letters (beginning of sentences and for proper nouns) and end punctuation.	F3c
MATHEMATICS (* Denotes Critical Objective)	
1. Sort or identify objects on multiple attributes (e.g., size, shape, and shading)	F3a
2. *Use patterns to make generalizations and prediction by:	F3a
a. Determining a rule and identifying missing numbers in a sequence;	F3a
b. Determining a rule and identifying missing numbers in a table of number pairs;	F3a
c. Identifying missing elements in a pattern and justifying their inclusion; and	F3a
d. Determining a rule and identifying missing numbers in a sequence of numbers or a table of number related by a combination of addition, subtraction, multiplication, or division.	F3a
3. *Select appropriate notation and methods for symbolizing a problem situation, translate real-life situations involving addition land/ or subtraction into conventional symbols of mathematics, and represent operations using models, conventional symbols, and words.	F3a
4. Identify needed information to solve a problem.	F3a

Ohio

	[illegible]
5. Explain or illustrate why a solution is correct.	F2a, F3a
6. Decompose, combine, order, and compare numbers.	F3a
7. *Illustrate or identify fractional parts of whole objects or set of objects and like fractions greater than one, and add and subtract like fractions with illustration and symbols.	F3a
8. *Add, subtract, multiply, and divide whole numbers and explain, illustrate, or select thinking strategies for making computations.	F3a
9. *Order fractions using symbols as well as the terms "at least" and "at most."	F3a
10. *Represent a whole number value by:	F3a
a. Applying place value ideas.	F3a
b. Translating between words and symbols in naming whole numbers.	F3a
11. Add and subtract decimal	F3a
12. Apply congruence, symmetry, paths, simple closed curves, and the ideas of interior and exterior.	F3a
13. *Recognize parallel, intersecting, and perpendicular lines, and right angles in geometric figures.	F3a
14. *Determine properties of two-dimensional figures and compare shapes according to their characterizing properties, identify two-dimensional shapes on a picture of a three-dimensional object, and compare three-dimensional objects describing similarities and differences using appropriate standard and non-standard language.	F3a
15. Symbolize a keying sequence on a calculator and predict the display.	F3a, F5a
16. *Model a problem situation using a number phrase/sentence and/or letters, understand the use of letter and symbols in statements such as ab=12 or 3c=d and find the value for a letter or symbol is given, and recognize the use of variables to generalize arithmetic statements applying the concepts of odd and even numbers.	F3a
17. Apply the use of tools to measure lengths, using centimeter and inches including recognizing the positions of whole numbers and fractions on a number line.	F3a
18. *Apply the counting of collections of coins and bills (which could include one, five, and ten dollar bills) in a buying situation.	F3a
19. Illustrate the approximate size of units of length, capacity, and weight; choose an appropriate unit to measure lengths, capacities, and weights in U.S. standard and metric units; and relate the number of units that measure an object to the size of the unit as well as the size of the object.	
20. Determine perimeters and areas of simple straight line figures and regions without using formulas.	F3a
21. *Use mental, paper-and-pencil, and physical strategies to determine time elapsed.	F3a
22. Apply concept of place value in making estimates in addition and subtraction using front-end digits.	F3a
23. *Round numbers and use multiples of ten to estimate sums, differences, and products and discuss whether estimates are greater than or less than an exact sum or difference.	F3a
24. *Make or use a table to record and sort information (in a problem solving setting using simple and complex patterns in nature, art, or poetry as setting) and make identifications, comparisons, and predictions from tables, picture graphs, bar graphs, and labeled picture maps.	F3a
25. Find simple experimental probabilities and identify events that are sure to happen, events sure not to happen, and those we cannot be sure about.	F3a
CITIZENSHIP (*Denotes Critical Objective)	
1. *Demonstrate knowledge of an ability to think about the relationship among events by:	
a. Identifying sequence of events in history;	F4a
b. Grouping events by broad historical eras on a time line;	F4a
c. Recognizing that change occurs in history; or	F4a
d. Identifying cause-and-effect relationships.	F2a
2. Identify and use sources of information about a given topic in the history of Ohio and the United States.	F4a

Ohio

		NCEO CODE
3.	*Relate major events and individuals in state history to time periods in the history of the nation and the world.	F4a
4.	Identify the various kinds of cultural groups** that have lived or live in Ohio.	F4a
5.	*Identify or explain how various cultural groups have participated in the state' s development.	F4a
6.	*Identify or compare the customs, traditions, and needs of Ohio's various cultural groups.	F4a
7.	*Demonstrate map skills by:	F4a
	a. Identifying various major reference points on the earth;	F4a
	b. Locating major land forms and bodies of water; or	F4a
	c. Using a number/letter grid system to locate places on a map, a map key to understand map symbols, a linear scale to measure distances on a map, and a direction indicator.	F4a
8.	Use maps and diagrams as a source of information to:	F4a
	a. Recognize continents by their outlines and major physical features;	F4a
	b. Recognize what characteristics of major land forms and bodies of water;	F4a
	c. Describe physical differences between places; or	F4a
	d. Explain the influence of natural environment on the settlement of Ohio and on changes in population patterns, transportation, and land use.	F4a
9.	*Identify or describe the location of Ohio in relation to other states, to regions of the United States, and to major physical features of North America.	F4a
10.	Identify the factors of production (land, labor, capitol, and entrepreneurship) needed to produce various goods and services.	F4a
11.	*Name the resources needed to produce various goods and services, classify each resource by the factors of production, or suggest alternative uses for those factors.	F4a
12.	Classify various economic activities as examples of production or consumption.	F4a
13.	*Identify the function of each branch of state government.	F4a
14.	Identify the purposes of state government (See Note Below)	F4a
15.	*Identify or explain the purposes of local government.	F4a
16.	*Differentiate between statements of fact and opinion found in information about public issues and policies.	F4a
17.	*Identify and assess the possibilities of group decision-making, cooperative activity, and personal involvement in the community.	F4a
18.	Identify the elements of rules relating to fair play.	F4a

NOTE: State government in #14 refers to the government of a state of the United States of America.

March Standards Continued

- * The objective will appear in both forms of the test. Objectives not flagged may be included in one or both forms, as space permits.
- ** The phrase cultural groups refers to a number of individuals sharing unique characteristics (e.g., race, ethnicity, national origin, and religion).

READING (*Denotes Critical Objective)

Given a fiction/poetry text to read silently, learners will demonstrate an understanding of language and elements of fiction/poetry by responding to items in which they:

		NCEO CODE
1.	Summarize the text.	F3b
2.	*Use graphic aids (for example, a table or graph) or illustration to locate or interpret information.	F3b
3.	*Demonstrate an understanding of text by retelling the story or poem, in writing, in own words.	F3b
4.	Identify and interpret vocabulary (words, phrases, or expressions) critical to the meaning of the text.	F3b

Given a fictional/narrative text to read silently, learners will demonstrate an understanding of language and elements of fiction/poetry by responding to items in which they:

Ohio

		NCEO CODE
5.	*Analyze the text, examining, for example, actions of characters, problem/solution, plot, or point of view.	F3b
6.	Infer from the text.	F3b
7.	*Compare and contrast elements such as characters, settings, or events.	F3b, F4b
8.	*Respond to the text.	F3b
9.	Choose materials related to purposes as evidenced in part by the capacity to:	F3b
	a. choose or identify library resources to locate specific information;	F3b
	b. Select fiction and nonfiction materials in response to topic or theme;	F3b
	c. Choose appropriate resources and materials to solve problems an make decisions.	F3b
10.	Demonstrate an understanding of text by predicting outcomes and actions.	F2a, F3b
11.	Summarize the text.	F3b
12.	*Use graphic aids (for example, a table or graph) or illustrations to locate or interpret information.	F3b
13.	Demonstrate an understanding of text by retelling the information, in writing, in own words.	F3b, F3c
14.	Identify and interpret vocabulary (words, phrases, or expressions) critical to the meaning of the text.	F3b
	Given a nonfiction text to read silently, learners will demonstrate an understanding of language and elements of non fiction by responding to items in which they:	
15.	*Discern major ideas and supporting ideas.	F3b
16.	*Analyze the text, examining, for example, comparison and contrast, cause and effect, or fact and opinion.	F3b
17.	Infer from the text.	F3b
18.	*Respond to the text.	F3b
19.	Choose materials related to purposes, as evidence in part by the capacity to:	F3b
	a. Choose or identify library resources to locate specific information;	F3b
	b. Select fiction and nonfiction materials in response to a topic or theme;	F3b
	c. Choose appropriate resources and materials to solve problems and make decisions.	F2a, F3b
20.	Demonstrate an understanding of text by predicting outcomes and actions.	F2a, F3b

Oklahoma

Document Utilized

Priority Academic Student Skills -- P.A.S.S. (September, 1993)

Background

The Education Reform and Funding Act, passed in April 1990, called for the development of a core curriculum in six core areas: the arts, language arts, languages, mathematics, science, and social studies. There are also content standards in four other areas: instructional technology; technical education; health, safety, and physical education; and hands-on career exploration and information skills. In the fall of 1993, the state did an extensive revision of the standards in all areas. Each subject is organized differently, but all include standards for grades K-12. Schools are required to include the state's core curriculum in their local curriculum, but districts can choose how to implement the standards. Criterion-referenced tests are under development to assess mastery of the standards in grades 5, 8, and 11.

Oklahoma

PRIORITY ACADEMIC STUDENT SKILLS	NCEO CODE
LANGUAGE ARTS READING: GRADE 4	
1. The student will exhibit positive reading habits and view reading as important. The Student Will:	F3b
a. Read silently for increased periods of time.	F3b
b. Read for a variety of purposes such as for entertainment and for information.	F3b
c. Choose a variety of reading and listening materials including, but not limited to, mysteries, autobiographies, fiction, poetry, and informational texts.	F3b
d. Demonstrate use of functional print to accomplish tasks including, but not limited to, schedules, catalogs, directories, charts, maps, graphs and directions.	F3b
e. Demonstrate appropriate use of information sources including, but not limited to, trade books, almanacs, atlases, encyclopedias, dictionaries, thesauruses, magazines and newspapers.	F3b
f. Use parts of a book including, but not limited to, table of contents, glossary, index and title page for specific purposes.	F3b
2. The student will read with fluency in order to understand what is read. The Student Will:	F3b
a. Identify technical and specialized terms and determine meanings of multiple meaning words using a variety of strategies (prediction, context, structural analysis and phonics).	F3b
b. Determine the purpose for reading a specific passage.	F3b
3. The student will use prior knowledge to become actively engaged with the reading material and use a range of comprehension skills (literal, inferential and evaluative). The Student Will:	F3b
a. Preview the material and use prior experiences and background knowledge to gain understanding of the reading passage.	F3b
b. Identify narrative and expository text.	F3b
c. Identify major elements of story structure (setting, characters, goal and conflict, major events of the plot and conflict resolution).	F3b
d. Determine a statement of central purpose, theme or the key concept(s) of a story, poem or expository passage.	F3b
e. Identify details that support or describe a key concept.	F3b
f. Evaluate, react and respond to reading materials through the arts, writing, discussion and/or further reading.	F3b
g. Make inferences and draw conclusions from the evidence presented in the reading material.	F2a, F3b

Oklahoma

		NCEO CODE
h.	Recognize relationships in text such as comparison/contrast, cause/effect, problem/solution and sequential order.	F2a, F3b
i.	Determine the author's purpose and point of view even when not explicitly stated.	F3b
j.	Interpret meaning of figurative language.	F3b
4.	The student will know the goal for reading is constructing meaning and will use effective strategies to aid comprehension. The Student Will:	F3b
a.	Expect the reading material to make sense and use correction strategies when the meaning is not clear.	F3b
b.	Make predictions and verify or revise thinking while reading.	F2a, F3b
c.	Generate questions to clarify meaning.	F3b
d.	Use a variety of comprehension and study strategies (outlining, webbing/clustering, skimming, K-W-L charts [what the student knows, what the student wants to know and what the student has learned] and summarizing).	F3b
LANGUAGE ARTS: GRADE 4		
	PROGRAM SKILLS	
1.	Use thinking skills to acquire and process written and auditory information for a variety of purposes	F1, F2a, F3b
2.	Effectively express ideas in oral and written modes for a variety of purposes and audiences.	F1a, F3c
3.	Recognize major literary and cultural traditions and use them as a foundation for effective communication. The Student Will:	F4b
a.	Listen for information and for pleasure (e.g., directions, teacher-read stories).	F1
b.	Use thinking skills to acquire and process written and auditory information for a variety of purposes.	F1, F2a, F3b
c.	Distinguish between fact, opinion and fantasy in print and nonprint media (e.g., literature, electronic media, advertising, propaganda).	F2a, F3b
d.	Communicate orally and through written forms on paper and/or on a computer screen (e.g., to inform, to persuade, to entertain, to express ideas, using sentence, paragraphs, compositions, poetry, stories, letters, note-taking skills, journals, reports, presentations or discussions).	F1a, F3c, F5a
e.	Demonstrate thinking skills in listening, speaking, reading and writing (e.g., focusing, gathering information, organizing, analyzing, synthesizing, generating, evaluating print and nonprint information.)	F1, F1a, F2a, F3b, F3c
f.	Speak before a group using appropriate delivery and language skills (e.g., volume, enunciation, pronunciation, word choice, movement, usage).	F1a
g.	Expand vocabulary through word study, literature and class discussion (e.g., multiple meanings, definitions, meaning in context).	F3b
h.	Utilize the writing process to develop and refine composition skills (e.g., prewriting, drafting, revising, editing, or proofreading, publishing or sharing).	F3c
i.	Demonstrate appropriate practices in written composition (e.g., complete thought, complete sentences, usage, mechanics, spelling).	F3c
j.	Use descriptive language (e.g., action, verbs, vivid adjectives and adverbs).	F1a, F3c
k.	Read and demonstrate a knowledge of various forms (genres) of literature (e.g., stories, books, poems, plays, essays).	F3b, F4b
MATHEMATICS: GRADE 4		
	PROCESS SKILLS	
1.	Mathematics as Problem-Solving	
a.	Use problem-solving approaches and technology to investigate and understand mathematical content.	F2a, F3a, F5a
b.	Formulate problems from everyday and mathematical situations.	F3a
c.	Develop and apply strategies to solve a variety of routine and nonroutine problems.	F2a, F3a

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		NCEO CODE
d.	Verify and interpret results with respect to the original problem.	F3a
2.	Mathematics as Communication	F3a
a.	Relate manipulative, pictures and diagrams to mathematical ideas.	F3a
b.	Relate his/her everyday language to mathematical language and symbols.	F3a
c.	Represent, discuss, write and read mathematical ideas and concepts.	F1a, F3a, F3b, F3c
3.	Mathematics as Reasoning. The Student Will:	F3a
a.	Draw logical conclusions about mathematical ideas and concepts.	F2a, F3a
b.	Use manipulatives, models, known facts, properties and relationships to explain thinking processes.	F2a, F3a
c.	Justify answers and solution processes.	F2a, F3a
d.	Use patterns and relationships to analyze mathematical situations.	F2a, F3a
4.	Mathematics as Connections. The Student Will:	F3a
a.	Develop the link of conceptual ideas to abstract procedures.	F3a
b.	Relate various concrete and pictorial models of concepts and procedures to one another.	F3a
c.	Recognize relationships among different topics in mathematics.	F3a
d.	Use mathematics in other curriculum areas.	F3a
e.	Use mathematics in daily life.	F3a
5.	Patterns and Relationships: The student will recognize, extend, describe and create a wide variety of patterns. The Student Will:	F3a
a.	Predict additional terms in a given pattern, describe how the pattern is created and extend the pattern.	F3a
b.	Recognize the relationship between numbers to determine and extend patterns.	F3a
c.	Investigate patterns of the four basic operations. Possible manipulatives include: junk boxes, pattern blocks, hundreds chart, geoboards, grid paper and children's books.	F3a
6.	Number sense and Numeration: The student will construct and interpret number meanings and place value concepts through practical, every day experiences and the use of manipulatives. The Student Will:	F3a
a.	Develop the place value concepts of the decimal numeration system.	F3a
b.	Compare and order whole numbers.	F3a
c.	Investigate the comparison of decimals.	F3a
d.	Recognize the relative magnitude of numbers. Possible manipulatives include: counters, beans, unifix cubes or multilink cubes, bean sticks or base-10 blocks, Cuisenaire rods, color tiles and children's books.	F3a
7.	Whole Number Operations and Computation The student will discover and develop meaning for the basic operations on whole numbers (e.g., addition, subtraction, multiplication, division) and apply concepts to computational algorithms. The Student Will:	F3a
a.	Recognize the connections between physical materials and the multiplication and division algorithms and use the algorithm to multiply and divide numbers.	F3a
b.	Apply properties of operations (e.g., identify, commutative, associative).	F3a
c.	Use a variety of techniques for estimation and mental computation.	F3a
d.	Select and use operations appropriate to solve specific problem situations and determine the reasonableness of results.	F3a
e.	Determine whether a given problem can best be solved using manipulatives, estimation, pencil-and-paper calculation, mental computation or a calculator.	F3a
f.	Use calculators and other technology in appropriate problem-solving situations. Possible manipulatives include: bean sticks or base-10 blocks, calculators and multilink cubes.	F3a, F5a
8.	Geometry and Spatial Sense: The student will describe, construct and classify geometric figures. The Student Will:	F3a
a.	Identify and construct models of intersecting lines, parallel lines and perpendicular lines.	F3a
b.	Apply the concepts of symmetry and congruence.	F3a
c.	Describe and construct two- and three - dimensional figures.	F3a
d.	Create polygons and record their perimeters and areas.	F3a
e.	Compare angles.	F3a

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		NCEO CODE
f.	Apply geometry to practical, everyday situations. Possible manipulatives include: geoboards, dot paper, clay, toothpicks, marshmallows, mirrors, color tiles, straws and pipe cleaners.	F3a
9.	Measurement: the student will investigate and develop the process of measurement and concepts related to nonstandard, customary (English) and metric units. The student will select and appropriate unit of measurement, estimate and solve application and nonroutine problems involving length, capacity, weight, volume, time and temperature with standard and nonstandard units. Possible manipulatives include: nonstandard measures such as unifix cubes, paper clips and containers; standard measures such as balance scales, rulers, tape measures, cups and spoons, geoboards, thermometers, coins and clocks.	F3a
10.	Statistics and Probability: The student will investigate statistics and probability using appropriate materials. The Student Will:	F3a
a.	Collect, organize, record and interpret data gathered from practical, everyday situations.	F3a
b.	Construct and interpret graphs.	F3a
c.	Explore data displays such as tables and charts.	F3a
d.	Use simple probability to predict and draw conclusions about possible outcomes. Possible manipulative include: graph mats, grid paper, unifix cubes and two-color counters.	F3a
11.	Fractions and Decimals: The student will use manipulatives to develop concepts of fractions, mixed numbers and decimals. The Student Will:	F3a
a.	Identify, compare and order fractional parts and decimal parts.	F3a
b.	Demonstrate equivalent fractions and mixed numbers.	F3a
c.	Develop computational skills in adding and subtracting fractions with like denominators and decimals of the same place value. Possible manipulatives include: fraction circles and bars, patterns blocks, base 10 blocks, decimal squares, coins and paper bills.	F3a

SCIENCE: GRADE 4

The Priority Academic Student Skills should be presented throughout grade four are to be learned with Earth/Space, Life and Physical Science applications.

1.	Observing and Measuring: Observing is the first action taken by the learner to acquire new information about an object or event. Opportunities for observations are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The Student Will:	F4a
a.	Identify similar or different characteristics in a given set of objects, organisms or events.	F4a
b.	Select descriptive (qualitative) or numerical (quantitative) observations in a given set of objects, organisms or events.	F4a
c.	Use an appropriate unit when measuring an object, organism or event.	F4a
2.	Classifying: Classifying establishes order. Objects, organisms and events are classified based on similarities, differences and interrelationships. The Student Will:	F4a
a.	Identify properties by which a set of objects, organisms or events could be ordered.	F4a
b.	Use observable properties to classify a set of objects, organisms or events.	F4a
3.	Experimenting: Experimenting is the sequential method of discovering information. It requires making observations and measurements to test ideas against facts. The student will arrange the steps of a scientific problem in the proper sequential order.	F4a
4.	Interpreting: Interpreting is the process of making predictions and hypotheses using data collected in an investigation. With these skills students will develop conclusions. The Student Will:	F4a
a.	Interpret line, bar and circle graphs.	F4a
b.	Collect and report data in an appropriate method.	F4a
c.	Select appropriate predictions for given patterns of evidence.	F4a
5.	Communicating: Communicating is the process of describing, recording and reporting experimental procedures and results to others. Communications may be oral or written and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations and mathematical equations. The Student Will:	F1a, F3c, F4a

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		NCEO CODE
a.	Describe the properties of an object or event in sufficient detail so another person can identify it.	F1a, F3c, F4a
b.	Complete or create and appropriate graph or chart from collected data.	F4a
6.	Safety in the Science Classroom: Safety is an essential part of any science activity. Safety in the classroom and care of the environment are individual and group responsibilities. The Student Will:	C2a, F4a
a.	Recognize potential hazards within a given activity.	C2a
b.	Practice safety procedures in all science activities.	C2a
SOCIAL STUDIES: GRADE 4		
	The Student Will:	
1.	Identify the major physical regions of Oklahoma.	F4a
a.	Locate Oklahoma and surrounding states on a national map.	F4a
b.	Compare state climates, landforms and natural resources.	F4a
c.	Describe ways that geography affects history.	F4a
d.	Explain the ways in which economic and natural resources impact the growth of Oklahoma.	F4a
2.	Describe the major events in the history of Oklahoma by identifying the major historical events in the growth and development of Oklahoma.	F4a
3.	Identify and describe the five major regions (Northeast, Southern, Midwestern, Rocky Mountain, Pacific Coastal) of the United States.	F4a
a.	Label the fifty states and major cities.	F4a
b.	Compare and contrast the climates, landforms and natural resources of each region.	F4a
c.	Analyze the effect of geography on the course of each region's history.	F4a
4.	Describe the duties of citizenship at the local, county and state levels.	F4a
a.	Identify the basic organization of local, county and state governments.	F4a
b.	Describe the role of effective state citizenship.	F4a
5.	Identify various ethnic and cultural groups and explain their contributions to Oklahoma's heritage.	F4a
a.	Research the leadership qualities, achievements and ethnic origins of famous Oklahomans.	F4a
b.	Examine likenesses and differences of various cultural groups that have contributed to the development of Oklahoma.	F4a
c.	Identify geographic areas of Oklahoma populated by various cultural groups.	F4a
6.	Locate and interpret information using a broad selection of resource materials and technology.	F4a
a.	Locate information using encyclopedias, almanacs, atlases, dictionaries, literature and technical media.	F4a
b.	Interpret various pictorial sources of information such as maps, graphs, charts, globes, pictures and cartoons.	F4a
c.	Design and construct maps, charts, graphs, tables and cartoons using data.	F4a
VISUAL ART: GRADES 4-5		
	The Student Will:	
a.	Exhibit a beginning art vocabulary which expands through the acquisition and use of appropriate art terms.	F4b
b.	Plan and use a variety of subjects, materials (media) and techniques in making original art.	F4b
c.	Recognize a variety of sources of ideas and content for art work.	F4b
d.	Demonstrate the use of simple perspective (showing depth on a flat surface).	F4b
e.	Demonstrate a growing awareness of the visual world through verbal, written and pictorial expression.	F4b
f.	Compare and describe works of art with respect to the material and process used to create them.	F4b
g.	Analyze and use the principles of design: rhythm, balance, contrast, movement, variety, center of interest and repetition in works of art.	F4b

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		NCEO CODE
h.	Analyze and use the elements of design: line, color, form, shape, texture and space in works of art.	F4b
i.	Discuss observations of visual and expressive features seen in the environment (such as colors, textures, shapes, etc.).	F4b
j.	Recognize similarities and differences between visual art and other art forms, such as music, dance and drama.	F4b
k.	Identify uses of visual art in an historical and cultural context.	F4b
l.	Recognize the development of art throughout history.	F4b
m.	Demonstrate a growing knowledge of artists and their works in several fields such as painting, sculpture, photography, commercial art, architecture and fiber arts.	F4b
n.	Identify uses of the visual arts in today's world including the popular media of advertising, television and film.	F4b
o.	Describe displays of original artworks seen in the community.	F4b
GENERAL MUSIC: GRADES 4-5		
	The Student Will:	
a.	Participate in music through singing and/or playing instruments.	F4b
b.	Sing or play musical pieces, reflecting an understanding of tonal and rhythmic elements.	F4b
c.	Perform basic tonal patterns and rhythm patterns on classroom instruments.	F4b
d	Conduct songs in simple meter.	F4b
e.	Sing or play a variety of folk, ethnic, classical and contemporary musical pieces in unison and two parts.	F4b
f.	Recognize and interpret basic notational symbols for tonal (pitch patterns) and rhythmic patterns and musical forms.	F4b
g.	Continue the use of systematic approach to melodic reading (arrangement of sound) using syllables, numbers, and/or letters in major and natural minor modes.	F4b
h.	Continue the use of a system for counting beat and rhythm using rhythm syllables and body movement.	F4b
i.	Demonstrate growth in the ability to sing or play music from notation (written representation of music)	F4b
j.	Demonstrate appropriate concert behavior (i.e., sitting still listening quietly, etc.).	G1c
k.	Experiment with variations in and demonstrate understanding of temp (speed), timbre (sound quality), dynamics (degree of loudness) and phrasing for expressive purposes.	F4b
l.	Uses traditional and nontraditional sound sources, including electronic, to compose simple musical pieces.	F4b
m.	Listen to and demonstrate a understanding of rhythm by responding physically or with the use of rhythm instruments.	F4b
n.	Notate simple pitch and rhythm patterns presented aurally (listening).	F4b
o.	Listen to and describe music from a variety of styles, periods and cultures.	F4b
p.	Use correct terminology to discuss the characteristics of a work, including melody, rhythm, meter, key, form, expressive qualities and style.	F4b
q.	Recognize and identify by listening, musical forms, orchestral instruments and classification of voice (e.g., soprano, tenor, bass, etc.).	F4b
r.	Identify a variety of composers and music, and make historical connections (styles, periods and cultures) to the music.	F4b
LANGUAGES: PROFICIENCY LEVEL--INTRODUCTORY		
	At the end of the Introductory Proficiency Level of studying a language in its cultural context, students will recognize some similarities and differences between the target culture and their own.	
1.	Speaking: At the Introductory Level, repetition, frequent pauses and production errors can be expected. The Students Will:	F4

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a.	Use isolated words and learned phrases (two or three words at a time).	F4
b.	Use vocabulary which is sufficient for handling classroom situations and basic needs.	F4
c.	Express basic courtesies.	F4
2.	Listening/Comprehending: At the Introductory Level, repetition, rephrasing, slow rate of speech may be needed for comprehension The Student Will:	F4
a.	Understand short, learned statements, questions, commands and courtesies.	F4
3.	Reading/Interpreting: At the Introductory Level, phrases and sentences may require a second reading. The Student Will:	F4
a.	Identify learned words and phrases including cognates (words recognizable in two languages and having similar meaning) and borrowed words.	F4
4.	Writing: At the Introductory Level, practical writing skills for communication will be minimal. The Student Will:	F4
a.	Copy or transcribe familiar words or phrases and reproduce some from memory.	F4
LANGUAGES: PROFICIENCY LEVEL--BEGINNING I		
	At the end of the Beginning I Proficiency Level of studying a language in this cultural context, students will recognize similarities and differences between the target culture and their own.	
1.	Speaking: At the Beginning I Level, pronunciations may still show strong first language influences. Errors may still be frequent. The Student Will:	F4
a.	Ask simple questions.	F4
b.	Make statements using learned material.	F4
c.	Express basic courtesies.	F4
d.	Use vocabulary which is sufficient to handle classroom situations and basic needs.	F4
2.	Listening/Comprehending: At the Beginning I Level, repetition, rephrasing, slow rate of speech may be needed for comprehension. The Student Will:	F4
a.	Understand sentence-length expressions, particularly when in context and delivered with clear, audible speech.	F4
3.	Reading/Interpreting: At the Beginning I Level, short paragraphs may require a second reading. Reading may still be limited to learned vocabulary. The Student Will:	F4
a.	Read standardized messages, phrases or expressions, such as some items on menus, schedules, timetables, maps and signs.	F4
4.	Writing: At the Beginning I Level, usage of symbols (letters, characters, accent marks) may be partially correct. The Student Will:	F4
a.	Write simple fixed expressions and limited memorized material.	F4
b.	Write simple autobiographical information (e.g., name, age, address, telephone number), as well as some short phrases and simple lists(e.g., foods, classroom objects, household items).	F4
c.	Compose short sentences with guidance.	F4
LANGUAGES: PROFICIENCY LEVEL--BEGINNING II		
	At the end of beginning II Proficiency Level of studying a language in its cultural context, students will recognize similarities and differences between the target culture and their own.	
1.	Speaking: At the Beginning II Level, the student is usually understood by other target language speakers. Repetition may be needed to avoid misunderstandings. The Student Will:	F4
a.	Ask and answer common questions.	F4
b.	Respond to simple statements.	F4
c.	Initiate and sustain limited conversation in social situations.	F4
d	Express basic needs, such as introducing self, ordering a meal, asking directions and making purchases.	F4
2.	Listening/Comprehending: At the Beginning II Level, understanding may be inconsistent.	F4

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	Repetition and rewording may be necessary. The Student Will:	
a.	Participate in spontaneous fact-to-face conversation about simple autobiographical information (e.g., name, age, address, telephone, school activities), social conventions and routine tasks, such as getting meals and receiving simple instructions and directions.	F4
3.	Reading/Interpreting: At the Beginning II Level, some misunderstandings will occur, particularly with details. The Student Will:	F4
a.	Read and comprehend main ideas and/or facts from simple materials dealing with basic needs, such as information in advertisements or articles of interest in relevant magazines.	F4
4.	Writing: The Student Will:	
a.	Create basic statements and questions about learned materials.	F4
b.	Write short, simple letters, messages, postcard, telephone messages.	F4
	INSTRUCTIONAL TECHNOLOGY: ELEMENTARY LEVEL, GRADES 4-5	
	The Student Will:	
1.	Describe the role of computers in the future by studying careers which use computers.	F5a
2.	Utilize the computers as a communication tool; (e.g., documents, electronic mail, telecommunications).	F5a
3.	Discuss the ethical use of computers in society.	F5a
4.	Develop problem-solving skills through the use of the computer and software which may include simulation, programming or specifically designed problem-solving software.	F2a, F5a
	HEALTH/SAFETY EDUCATION: GRADE 4	
	The Student Will:	
a.	Locate health information telephone numbers and other health resources.	F4
b.	Discuss labeling on packaged products and explain label information for determining healthy consumer choices.	F4
c.	Identify types of foods and patterns of eating related to different cultures.	F4
d.	Identify foods within each of the basic food groups and select appropriate servings and portions for his/her age	C1a, F4
e.	Describe peer resistance skills (e.g., saying "no" to peers offering drugs, alcohol).	C2d, F4
f.	List healthy leisure time activities.	C1
g.	Discuss adolescent growth and development rates.	F4
h.	Identify the relationship between physical well-being and mental health.	C1, G
i.	Identify ways to protect oneself from abuse.	C2
j.	Identify and practice positive ways to resolve problems.	F2a, G4
k.	Identify the impact of media messages.	F4
l.	Identify causes of poor dental health (e.g., not brushing or flossing teeth) and name foods and other practices hazardous to teeth.	C2
m.	Name and describe the various systems of the body: circulatory, digestive, endocrine, excretory, immune, muscular, nervous, reproductive, respiratory and skeletal.	F4
n.	Identify sources and types of communicable diseases (e.g., chicken pox, measles, mumps, common cold) and how they are transmitted.	C2c
	PHYSICAL EDUCATION: GRADE 4	
	It is important to realize many activities and skills can fall under each of the topic headings. A small number have been selected to demonstrate the appropriateness of what is expected at the various age levels. Please note the progression of the skills listed as the child's physical development progresses. Some areas have been repeated because of the need for emphasizing those skills.	
1.	The student will perform various intermediate locomotor and nonlocomotor skills in a combination of rhythmic activities. The Student Will:	C1b

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a.	Participate in intermediate rhythmic activities involving physical movement with or without music.	C1b
b.	Balance safely on a variety of objects (e.g., balance beams, benches).	C1b
c.	Transfer weight from feet to hands at fast and slow speeds (e.g., mulekick, handstand, cartwheel).	C1b
d.	Perform basic tumbling skills using proper form.	C1b
e.	Recognize and participate in games and rhythms of various cultures.	C1b
2.	The student will have knowledge of and be able to perform the five components of fitness, i.e., muscular strength, muscular endurance, flexibility, body composition and aerobic endurance activities. The Student Will:	C1b
a.	Describe and participate in physical activity associated with healthy lifelong skills.	C1b, C3a
b.	Participate in aerobic activity for specified time.	C3a
c.	Learn to monitor heart rate.	no match
d.	Support, lift and control body weight in a variety of activities while practicing appropriate body alignment.	C1b
e.	Regularly participate in activities for the purpose of improving fitness and physical skills.	C1b
3.	The student will participate in a wide variety of activities that involve locomotion, nonlocomotion and the handling of various objects at a developmentally appropriate level. The Student Will:	C3a
a.	Demonstrate intermediate jump rope skills.	C2b
b.	Jump and land, throw, catch and kick using proper techniques.	C2b
c.	Hand dribble and foot dribble a ball while participating in an organized group activity.	C2b
d.	Strike a softly thrown ball with a bat or paddle demonstrating an appropriate grip, side to the target and swing plane.	C2b
e.	Strike a softly thrown, lightweight ball back to a partner using the head, trunk and/or limbs in various combinations (e.g., the pass or volley as in volley ball, the thigh in soccer.)	C2b
f.	Escape, catch or dodge an individual or object while moving.	C2b
g.	Be introduced to survival skills concerned with being in, on and around the water.	C2a
h.	Be introduced to equipment used in a variety of activities.	F4
i.	Be introduced to lifetime outdoor activities available in the community.	no match
4.	The student will practice sportsmanship, rules and safety factors of organized activities. The Student Will:	no match
a.	Practice and distinguish between appropriate and inappropriate behaviors for participating with others in physical activity.	E1c
b.	Be considerate of others physical activity settings.	E1c
c.	Identify equipment used and safety precautions necessary for participation in a variety of activities.	C2a

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Curriculum Content Framework for Oregon Public Schools (March 1994)

Background

The Oregon Educational Act for the 21st Century, passed by Oregon lawmakers in 1991, identified 36 content goals. The state now is developing curriculum frameworks based on those goals. In grades K-3, the standards will be interdisciplinary. In grades 4-12, they will be by subject area: the arts, civics and government, economics, English/language arts, geography, health and physical education, history, mathematics, science, second languages, and technology. The state is also developing performance standards at grades 3, 5, 8, and 10 for 11 outcomes that students must meet to earn a Certificate of Initial Mastery. Upon completion these C.I.M. standards will likely include grade 12. The C.I.M. standards are mandatory. The state board will decide whether the content standards are mandatory or voluntary for districts.

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1. The use of diverse and emerging technologies to access and process information across the instructional areas.	F5a
2. The study of technology systems, their influence on individuals and society; their development and use in various fields.	F4
3. The study of the dynamics of language as central to thought and expression, giving voice to thought in conceptualizing, shaping, and representing human experience, including:	
a. Various levels of language (e.g., formal, information, colloquial, slang);	F4a
b. The structure and function of language as a symbol system;	F4a
c. Issues of stereotyping and bias in language; and	F4a, G3
d. Understanding how language is used to influence, manipulate, and control.	F4a
Demonstration of appropriate level of language usage (e.g., formal, informal, colloquial, slang) in oral and written presentations.	F1a, F3c
Recognition of and sensitivity to language issues affecting people within a pluralistic society (e.g., age, gender, race, disabilities).	G3b
Identifying fiction and nonfiction.	F4a
Recognition of language used to manipulate, coerce, or control (e.g., propaganda and other persuasion techniques).	F4a
Recognition that words have histories, serve as storehouses of meaning, associations and assumptions connected to earlier ways of understanding, and may undergo a change in meaning	F4a
Recognition of how context, topic, purpose, audience, influences the structure and use of language	F4a
Recognition of the metaphorical nature of slang.	F4a
4. The view of reading, using a variety of strategies to:	
a. Construct meaning from a range of text and multimedia sources;	F3b
b. Make connections with one's own life;	F3b
c. Monitor and evaluate one's own comprehension; and	F3b
d. Analyze and reflect.	F3b
Determination of word meaning in content areas by use of context clues, dictionaries and glossaries.	F3b
Use of comprehension strategies to construct meaning (e.g., cause and effect, sequencing, literal and inferred main idea, personal experiences and prior knowledge) and to make connections within text (e.g., identifying point of view, theme, story structure, author's	F3b

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	NCEO CODE
purpose and style).	
Interpretations of informative and practical selections from many disciplines and formats (e.g., making generalizations).	F3b
Self monitoring comprehension (e.g., use of before, during and after reading strategies) and the ability to adapt reading strategies to meet different purposes; (e.g., scanning, skimming or careful reading as appropriate).	F3b
5. The development of writing as a tool for learning, reflecting, and conveying meaning in a variety of forms and modes for a range of purposes and audiences, including the use of multiple media for publication and presentation.	F3c
Continued use of a multi-step process (e.g., generating ideas, planning, drafting, revising, editing, proofreading, and publishing/sharing) when communicating in oral, written and visual forms (e.g., learning logs, journals, research projects, multimedia presentations)	F1a, F3c
Writing to convey meaning through selection of appropriate modes (e.g., narrative, descriptive, expository, persuasive, and imaginative) and the incorporation of elements of more than one mode within a single piece	F3c
Communicating to wider audiences by drawing upon a variety of experienced and an awareness of self and issues beyond immediate environment	F3c
Controlled self analysis of writing skills through the use of writing traits (e.g., ideas and content, organization, voice, word choicer, sentence fluency, conventions)	F3c
6. The development of speaking as a means for oral exchanges of information, including using language to:	
a. Deliver presentations and demonstrate effective skills relevant to the audience;	F1a
b. Ask and answer questions; and	F1, F1a
c. Communicate ideas effectively in group situations.	F1a, G4b
Use of a Multi-step process (e.g., gather and organize information, draft and make notes, plan presentation) when making formal presentations in a variety of settings (e.g., report class, large group discussion, demonstrations)	F1
Adapting presentations to fit wider audiences (e.g., asking questions, presenting material with consideration for audience needs) and intended purposes (e.g., exposition, entertainment, persuasion, demonstration)	F1a
Self analysis of skills through the use of skills through the use of speaking traits (e.g., delivery both verbal and nonverbal; language; content organization)	F1a
Participating in group discussion and achievement (e.g., staying on task, assuming appropriate roles, assessing progress)	F4b
7. The development of listening as a way of obtaining meaning through oral messages presented in a variety of media, including:	
a. Identifying the purpose of an oral message;	F1
b. Analyzing and evaluating verbal and nonverbal messages and the way they are delivered;	F1
c. Using empathetic and appreciative listening skills to enrich understanding; and	F1
d. Engaging in verbal and nonverbal interaction with a speaker to ensure effective communication.	F1
Recognition of speaker's and own purpose in listening (e.g., gaining information, understanding feelings of others, analyzing intentions of others).	F1
Responding and showing sensitivity to speaker by nodding, looking at speaker, recognizing technique or approach.	F1
Evaluation of appropriateness of presentations for intended audience, medium, purpose identification of basic relationships (e.g., themes, characterizations).	F1
8. The study of how works of literature reflect, record, communicate, and influence the interpretation of human experience, including learning to:	
a. Make informed analysis of the purpose and meaning of literary works;	F4b
b. Evaluate how the form and content of a literary work contributes to its message and impact;	F4b

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c. Understand how literature defines and binds us as a national and global community.	F4b
Describing several pieces of significant children's literature	F4b
Identification of various literary forms (e.g., short stories, poetry, drama)	F4b
Definition and use of elements of fiction (e.g., plot , setting, character and tone) and forms of figurative language (e.g., simple metaphors, personification)	F4b
Relating literature to own life and to broader human concerns, issues and possibilities, and demonstrating ways that literature form different cultures (e.g., ethnic, religious, linguistic, national groups) gives voice to both common and distinctive values, experiences, struggles, and contributions	F4b
9. The development of the technical and problem-solving skills and knowledge necessary for creative communication and personal expression through creating and performing in the literary, visual, and performing arts (i.e., music, dance, drama).	F2a, F4b
DANCE	
Observe and discuss how dance is different from other forms of human movement (such as sports, everyday gestures).	F4b
Take an active role in a class discussion about interpretations of and reactions to a dance.	F4b
Present their own dances to peers and discuss their meanings with competence and confidence.	F4b
DRAMA	
Script writing by planning, and recording improvisations based on personal experience and heritage, imagination, literature, and history.	F4b
Acting by assuming roles and interacting in improvisations	F4b
Designing by visualizing and arranging environments for classroom dramatizations	F4b
Directing by planning classroom dramatizations	F4b
MUSIC	
Sing independently, on pitch and in rhythm, with appropriate timbre, diction and posture, and maintain a steady tempo.	F4b
Perform on instruments on pitch, in rhythm, with appropriate dynamics and timbre, and maintain a steady tempo.	F4b
Improvise "answers" in the same style to given rhythmic and melodic phrases	F4b
Create and arrange music to accompany readings or dramatizations	F4b
Read whole, half, dotted half, quarter, and eighth notes and rest in 2/4, 3/4 and 4/4 meter signatures.	F4b
VISUAL ARTS	
Know the differences between materials, techniques, and process	F4b
Describe how different materials, techniques, and processes cause different responses	F4b
Use how different media, techniques, and processes to communicate ideas , experiences, and stories	F4b
Know the difference among visual characteristics and purposes of art in order to convey ideas	F4b
Describe how different expressive features and organizational principles cause different responses	F4b
Use visual structures and functions of art to communicate ideas	F4b
Explore and understand prospective content for works of art	F4b
Select and use subject matter, symbols, and ideas to communicate meaning	F1, F4b
LITERARY ART	
Recognition and practice with formulaic poetry (e.g., cinquain, tanka, diamante, haiku)	F4b
10. The study of how works of literary, visual and performing (i.e., music, dance, drama) art and artists reflect, record, communicate, influence, and change cultural values.	F4b

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DANCE	
Perform folk dances from various cultures with competence and confidence.	F4b
Learn and effectively share a dance from a resource in their own community; describe the cultural and/or historical context.	F4b
Accurately answer questions about dance in a particular culture and time period (for example, in colonial America, why and in what settings did people dance? What did the dances look like?)	F4b
DRAMA	
Researching by finding information to support classroom dramatizations.	F4b
Understanding context by recognizing the role of theater, film, television, and electronic media daily life.	F4b
MUSIC	
Identify, by genre or style, aural examples of music from various historical periods and cultures.	F4b
VISUAL ARTS	
Know that the visual arts have both a history and specific relationships to various cultures.	F4b
Identify specific works of art as belonging to particular cultures, times, and places.	F4b
Demonstrate how history, culture, and the visual arts can influence each other in making and studying works of art.	F4b
LITERARY ART	
Recognition of literary patterns which reflect an outlook on life	F4b
11. The study of how to make informed critical and aesthetic judgments about works of literary, visual and performing (i.e., music, drama, dance) art, based on criteria and the ongoing development of personal taste and values.	F2a, F4b
DANCE	
Explore, discover, and realize multiple solutions to a given movement problem; choose their favorite solution and discuss the reasons for that choice.	F2a, F4b
Observe two dances and discuss how they are similar and different in terms of one of the elements of dance (such as space, through body shapes, levels, pathways).	F4b
DRAMA	
Comparing and connecting art forms by describing theater, dramatic media (such as film, television, and electronic media), and other art forms.	F4b
Analyzing and explaining personal preferences and constructing meanings from classroom dramatizations and from theater, film, television, and electronic media productions.	F4b
MUSIC	
Identify simple music forms when presented aurally.	F4b
Device criteria for evaluating performances and compositions.	F4b
Identify similarities and differences in the meanings of common terms used in the various arts.	F4b
VISUAL ART	
Understand there are various purposes for creating works of visual art.	F4b
Describe how people's experiences influence the development of specific artworks.	F4b
Understand there are different responses to specific artworks.	F4b, G3
12. The study of numeration: A strong sense constructed through the understanding of number systems, their properties, number theory, and their relationship to each other.	F3a

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Develop and apply number sense.	F3a
Interpret the multiple uses of numbers encountered in the real world.	F3a
Demonstrate concretely the operations by modeling and discussing a rich variety of problems situations.	F3a
Relate the mathematical language and symbolism of operations to problem situations and informal language.	F3a
Recognize that a wide variety of problem structures can be represented by a single operation.	F3a
Develop operation sense.	F3a
13. The study of measurement—electing appropriate attributes, units, and tools to measure length, capacity, weight, area, volume, time, temperature, and angle while developing formulas and procedures to solve problems.	F3a
Develop the process of measuring and concepts related to units of measurement.	F3a
Make and use estimates of measurement.	F3a
Make and use measurement in problems and everyday situations.	F3a
14. The study of statistics and probability: collecting, organizing, displaying, and analyzing information; using numerical data to predict events.	F3a
Express concepts of chance as ratio.	F3a
Carry out experiments and simulations.	F3a
Construct, read and interpret displays of data.	F3a
Formulate and solve problems that involve collecting and analyzing data.	F3a, F5a
15. The study of mathematical procedures--operating with whole numbers, fractions, decimals, integers and rational numbers; selecting, using and inventing appropriate methods for computing including mental computation, pencil and paper calculation, calculators, computers or other technology; and interpreting results while linking physical models to procedures.	F3a, F5a
Apply estimation strategies.	F4a
Explain the reasonableness of results.	F4a
Model, explain and develop competency of basic facts and algorithms (Whole number, fraction, and decimal algorithms).	F4a
Describe and use a variety of mental computation techniques.	F4a
Describe the choice of the most appropriate computation technique (mental, paper and pencil, calculator.)	F4a
16. The study of patterns, functions, relationships, and algebra: Studying patterns to make conjectures about relationships; graphically representing functions to make connections within mathematics (most often using graphing calculators and computers); and using algebra (the language of mathematics) to do mathematics while exploring relationships and developing generalizations.	F2a, F3a
Create, describe, and extend a wide variety of patterns.	F3a
Model how a change in one quantity can result in a change to another.	F3a
Explore the use of variables and open sentences to express relationships.	F3a
Represent and describe mathematical relationships.	F3a
17. The study of geometry: Exploring shape, are, and volume to build a foundation of geometrical thinking; and using models to develop spatial visualization and extend the understanding of location, distance, patterns in space, symmetry, and coordinate geometry.	F3a
Describe, model, draw and classify shapes.	F3a
Investigate and predict the results of combining, subdividing and changing shapes.	F3a
Develop spatial sense.	F3a
Relate geometric ideas to number and measurement ideas.	F3a
Identify examples of geometry in the world.	F3a

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18.	The study of science facts, concepts, principles and theories from physical systems, earth and space systems, and life systems that provide a foundation for understanding and applying science.	F4a
	Recognize interactions by noting the object or condition that causes change.	F4a
	Describe how interaction and change affect populations.	F4a
	Recognize diversity among plans and animals.	F4a
	Predict the results of an experiment involving change.	F4a
	State possible causes for a particular event.	F4a
	Identify major life processes.	F4a
	Compare major life processes.	F4a
	Identify force as a push or pull.	F4a
	Distinguish between static and dynamic forms of equilibrium.	F4a
	Demonstrate a state of equilibrium.	F4a
19.	The study of science as inquiry, a set of interrelated processes by which scientists pose questions, investigate phenomena, and cultivate deeper understanding about the natural world.	F2a, F4a
	Ask questions about an object or event and recognize alternative solutions.	F2a, F4a
	Recognize a model and explain why it is used.	F2a, F4a
	Solve problems using guess and check or objects/models.	F2a, F4a
	Engage in cooperative problem solving.	F2a, F4a
	Use observations and questions to make a testable explanation.	F4a
	Design an experiment to test hypotheses.	F4a
	State similarities in observations of several demonstrations or experiments.	F4a
	Make logical conclusion from information presented.	F2a, F4a
	Share information orally, pictorially and in writing.	F1a, F3c, F4a
20.	The study of connections among and within the natural sciences, between science and mathematics, and between science and technology / engineering.	F4a
	Recognize relationships across science disciplines.	F4a
	Measure and record the properties of an object or event .	F4a
	Select and use the appropriate instrument for measurement.	F4a
	Interpret tables, graphs and charts of scientific data.	F4a
	Identify uses of technology within scientific investigations.	F4a
21.	The study of how science and technology are influenced by and, in turn, influence the culture and context in which they operate.	F4a
	Recognize how individual wants and needs are positively and negatively influenced by scientific knowledge.	F4a
	Recognize how individual wants and needs are influenced by technology.	F4a
22.	The study of history, including:	
a.	The development and changing character of human societies;	F4a
b.	The economic and technological development of human societies in the quest to sustain and improve life;	F4a
c.	People's development of their understanding of themselves, their place in the universe, and	F4a
d.	The development of political theories, organizations, and institutions.	F4a
	CHRONOLOGICAL THINKING	
	In reading historical narratives, differentiate among autobiographies, biographies, literary narratives, and historical narratives and they should be able to explain or diagram the temporal structure of events in the story.	F4a
	Group (periodize) events by broadly-defined eras in the history of the nation or region they are studying.	F4a

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HISTORICAL COMPREHENSION	
Identify the central question(s) the historical narrative attempts to address and the purpose, perspective, or point of view from which it has been constructed.	F4a
Identify specific characteristics of the historical place and time that influenced why events, or actions, developed where and when they did.	
HISTORICAL ANALYSIS AND INTERPRETATION	
In reading historical narratives, identify the author's main points and the purpose or point of view from which the narrative has been written.	F4a
In analyzing historical narratives, identify the facts the author has provided and to evaluate the credibility of the generalization or interpretation the author has presented on the basis of the evidence he or she has assembled.	F4a
HISTORICAL ISSUES, ANALYSIS, AND DECISION-MAKING	
In reading historical narratives, identify the author's main points and the purpose or point of view from which the narrative has been written.	F4a
In analyzing historical narratives, identify the facts the author has provided and to evaluate the credibility of the generalization or interpretation the author has presented on the basis of the evidence he or she has assembled.	F4a
HISTORICAL RESEARCH	
In studying historical documents, students should be able to formulate significant questions such as: Who produced the document, when, how, and why? What do they need to find out in order to "tell a story" about the document and the people and events connected with it.	F4a
U.S. HISTORY, ERA 1 (BEGINNING TO 1620): THREE WORLDS MEET	
The basic characteristics of societies in the Americas, Western Europe, and West Africa that increasingly interacted after 1450.	F4a
Early European exploration and colonization, and the resulting cultural and ecological interactions.	F4a
U.S. HISTORY, ERA 2 (1585-1763): COLONIZATION AND SETTLEMENT	
The early arrival of Europeans and Africans in the Americas and how these people interacted with Native Americans.	F4a
How political institutions and religious freedom emerged in the North American colonies.	F4a
How the values and institutions of European economic life took root in the colonies and how slavery reshaped both European and African life in the Americas.	F4a
U.S. HISTORY, ERA 3 (1754-1820s): REVOLUTION AND THE NEW NATION	
The causes of the American Revolution, the ideas and interests involved in forging the revolutionary movement, and the reasons for the American victory.	F4a
How the American Revolution affected the social and economic relations among the new nation's many groups and regions.	F4a
U.S. HISTORY, ERA 4 (1801-1861): EXPANSION AND REFORM	
United States territorial expansion between 1801 and 1861 and how it affected relations with external powers and Native Americans.	F4a
How the industrial revolution, the rapid expansion of slavery and the settlement of the West in the first half of the 19th century changed the lives of Americans and led toward regional tensions.	F4a
The extension, restriction and reorganization of political democracy after 1800.	F4a
The sources and character of religious, social and political reform in the ante-bellum period and what the reforms accomplished or failed to accomplish.	F4a

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	NCEO CODE
U.S. HISTORY, ERA 5 (1850-1877): CIVIL WAR AND RECONSTRUCTION	
The causes of the Civil War.	F4a
The course and character of the Civil War and its effect on the American people.	F4a
Reconstruction plans and their successes and failures.	F4a
U.S. HISTORY, ERA 6 (1870-1900): THE DEVELOPMENT OF THE INDUSTRIAL US	
The transformation of American life by the rise of big business, heavy industry, and mechanized farming.	F4a
Massive immigration after 1870 and the new social patterns, conflicts, and ideas of national unity amidst growing cultural diversity.	F4a
Rise of the American labor movement and the political issues which reflected the social and economic changes of the era.	F4a
Federal Indian policy and United States foreign policy that emerged after the Civil War.	F4a
U.S. HISTORY, ERA 7 (1890-1930): THE EMERGENCE OF MODERN AMERICA	
Attempts to address the problems of a modern, urbanizing industrial society by Progressives and others.	F4a
The changing roles of the United States in world affairs during the progressive era through World War I.	F4a
How the United States changed from the end of World War I to the eve of the Great Depression.	F4a
U.S. HISTORY, ERA 8 (1929-1945): THE GREAT DEPRESSION & WORLD WAR II	
The causes and consequences of the Great Depression.	F4a
The Roosevelt presidency, the New Deal, the transformation of American federalism, and the development of the welfare state.	F4a
The origins and course of World War II, the character of the war at home and abroad, and its reshaping of the U.S. role in the world affairs.	F4a
U.S. HISTORY, ERA 9 (1945-EARLY 1970s): POST-WAR UNITED STATES	
Economic and social change in postwar America.	F4a
Major postwar political decision from Truman to Johnson.	F4a
The Cold War and the Vietnam conflict in domestic and international policies.	F4a
Issues concerning racial and gender equality and civil liberties.	F4a
U.S. HISTORY, ERA 10 (1968-PRESENT): CONTEMPORARY UNITED STATES	
Major developments in United States foreign and domestic policies in the Nixon, Ford, and Carter administrations.	F4a
Conservative resurgence under Reagan and Bush and the end of the Cold War.	F4a
The continuing struggle for equality amid a new era of immigration.	F4a
WORLD HISTORY, ERA 1: THE BEGINNINGS OF HUMAN SOCIETY	
The biological and cultural processes that gave rise to the earliest human communities.	F4a
The processes that led to the emergence of agricultural societies around the world.	F4a
WORLD HISTORY, ERA 2 (4000-1000 BCE): EARLY CIVILIZATIONS AND THE RISE OF PASTORAL PEOPLES	
The major characteristics of civilization and how civilization emerged in Mesopotamia, Egypt, and the Indus valley.	F4a
Agrarian societies spread and new states emerge in the third and second millennia BCE.	F4a
The political, social, and cultural consequences of population movements and militarization in Eurasia in the second millennium BCE.	F4a
WORLD HISTORY, ERA 3 (1000 BCE-300 CE): CLASSICAL TRADITIONS, WORLD FAITHS, AND EXTENSIVE EMPIRES	

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	NCEO CODE
Empire-building, trade, and migrations contribute to increasingly complex relations among peoples of the Mediterranean basin, Africa, and Central Asia, 1000-600 BCE.	F4a
The rise of Aegean civilization and the interrelations that developed between Hellenism and the cultural traditions of Southwest Asia and Egypt, 600-200 BCE	F4a
The rise of large scale empires in the Mediterranean basin, China and India 600 BCE- 300 CE.	F4a
The rise of early agrarian civilizations in Mesoamerica.	F4a
WORLD HISTORY, ERA 4 (300-1000 CE): EXPANDING ZONES OF EXCHANGE AND ENCOUNTER	
Imperial crises and their aftermath, 300-700 CE	F4a
Causes and consequences of the rise of Islamic civilization between the seventh and tenth centuries.	F4a
Major developments in East Asia in the era of the Tang dynasty, 600-900 CE.	F4a
The search for political and social order in Europe, 500-1000 CE.	F4a
The spread of agrarian populations and rise of states in Africa south of the Sahara.	F4a
The rise of centers of civilization in Mesoamerica and Andean South America in the first millennium C.	F4a
WORLD HISTORY, ERA 5 (1000-1500 CE): INTENSIFIED HEMISPHERIC INTERACTIONS	
The maturing of an interregional system of communication, trade, and cultural exchange in an era of Chinese economic power and Islamic expansion.	F4a
The rise of European society and culture, 1000-1300 CE.	F4a
The rise of the Mongol empire and its importance for Afro-Eurasian peoples, 1200-1350.	F4a
The growth of states, towns, and trade in Sub-Saharan Africa between the 11th and 15th centuries.	F4a
Patterns of crisis and recovery in Afro-Eurasia, 1300-1450.	F4a
The expansion of states and civilizations in the Americas, 1000-1500.	F4a
WORLD HISTORY, ERA 6 (1450-1770): GLOBAL EXPANSION AND ENCOUNTER	
How the transoceanic interlinking of all major regions of the world in the 1450-1600 period led to important global transformations.	F4a
How European society experienced political, economic, and cultural transformations in an age of global intercommunications, 1450-1750.	F4a
How large territorial empires dominated much of Eurasia between the 16th and 18th centuries.	F4a
Economic, political, and cultural interrelations among peoples of Africa, Europe, and the Americas, 1500-1750.	F4a
How Asian societies responded to the challenges of expanding European power and forces of the world economy.	F4a
WORLD HISTORY, ERA 7 (1750-1914): THE AGE OF REVOLUTIONS	
The causes and consequences of political revolutions in the late 18th and 19th centuries.	F4a
The causes and consequences of the agricultural and industrial revolutions, 1700-1850.	F4a
The transformation of Eurasian societies in an era of global trade and rising European power, 1750-1850.	F4a
Patterns of nationalism, state-building, and social reform in Europe and North America, 1830-1914.	F4a
Patterns of global change in the era of Western military and economic domination, 1850-1914.	F4a
WORLD HISTORY, ERA 8: THE TWENTIETH CENTURY	
The causes and global consequences of World War I.	F4a
The search for peace and stability in the years between the wars.	F4a

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		NCEO CODE
	The causes and global consequences of World War II.	F4a
	How new international power relations took shape following World War II.	F4a
	Promises and paradoxes of the second half of the 20th century.	F4a
23.	The study of geography, including the where and why of location, the physical and human-environment interactions and global connections and interdependence.	F4a
	The characteristics of maps, globes and other geographic tools and techniques.	F4a
	The basic elements of maps and globes.	F4a
	When to use a map rather than a globe or a globe rather than a map.	F4a
	How to interpret aerial photos and maps.	F4a
	How to use number/letter grids to plot absolute location.	F4a
	The location of places, geographic features and patterns of the environment.	F4a
	The location of the Equator, the hemispheres, International Dateline, Prime Meridian, Tropic of Cancer, Tropic of Capricorn, Arctic and Antarctic circles and the North and South Poles.	F4a
	The seven continents on maps without labels.	F4a
	Selected countries and metropolitan areas on maps or globes.	F4a
	The Earth's oceans on maps or globes.	F4a
	The location of places relative to one another (state or provinces, countries, continents, oceans)	F4a
	The location of places relative to physical features (e.g., New York City is on the Atlantic Ocean)	F4a
	The location of major agricultural and industrial regions in United States.	F4a
	The characteristics and uses of spatial organization of the Earth's surface.	F4a
	The relationships between locations through such concepts as direction, distance (absolute, relative, perceived travel time and cost), interaction, accessibility, and association.	F4a
	How changing transportation and communication technology have affected relationships between locations.	F4a
	The physical and human characteristics of place.	F4a
	Ways that human decisions and activities shape the characteristics of places (e.g., how Bedouins, Mongolians, or grandparents living in Arizona meet their needs in a desert climate)	F4a
	The concept of regions.	F4a
	Characteristics of regions (climate, natural vegetation, shopping, housing, manufacturing, land form, religion, language)	F4a
	Reasons for regional boundaries (e.g., physical, economic, political, cultural)	F4a
	How regions change over time (e.g., a new shopping center, a regional hospital, a new manufacturing plant, interstate highways, railroads, airports)	F4a
	Reasons for different regional labels and images (e.g., the South, Corn Belt, Chicago Metropolitan Area, the Sun Belt, Chinatown)	F4a
	Ways in which regions are connected to one another (e.g., the production of basic items, transportation, communication).	F4a
	That culture and experience influence people's perception of places and regions.	F4a
	Why different people view and relate to places, regions, and issues on different ways (older people may describe changes over time while younger people may see only recent changes; a newcomer may not understand much about a place or region whereas a long-term resident may know the place or region very well)	F4a
	Ways in which people view similar places or regions differently (e.g., cities as safe or unsafe places; the Great plains as barren or beautiful).	F4a

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	NCEO CODE
Physical processes that shape patterns on Earth's surface.	F4a
The physical characteristics of Earth's biosphere (vegetation and biomes), atmosphere (weather and climate), lithosphere (land forms), and hydrosphere (water)	F4a
The relationships among physical patterns and processes (e.g., evaluation, climate, natural vegetation, land forms, positive relative to the Equator, sea level, and oceans)	F4a
Characteristics of ecosystems on Earth's surface.	F4a
Earth's natural systems (hydrosphere, lithosphere, biosphere, and atmosphere; environment, ecosystem, biome, cycle)	F4a
Possible effects of changes in an ecosystem changes in rainfall affect crop production; natural disasters such as earthquakes, hurricanes, and volcanic eruptions affect people, vegetation, and animals.	F4a
Earth's limited capacity (causes and consequences in increasing animal population, overgrazing and plowing of arid land, mineral or resource exploitation, waste dumping)	F4a
The nature, distribution, migration and movement of human population on Earth's surface.	F4a
The characteristics of populations (e.g., ethnic background, religion, gender, age)	F4a
Ways in which transportation and communication systems have changed and the effects of such changes on human population patterns.	F4a
The nature and complexity of Earth's cultural mosaics.	F4a
Different uses of similar environments by different societies.	F4a
That culture is the way groups of people think, act, and work that is transmitted from one generation to another, and that customs are parts of a culture (e.g., terms of address, clothing styles, religious rituals)	F4a
The difference between material (e.g., tools, clothing) and non-material (e.g., ideas, beliefs, language) culture, and ways these are expressed in various places.	F4a
How societies change (e.g., technological innovations and inventions, cultural diffusion, assimilation, acculturation, movement of people from one place to another)	F4a
How a value system influences what is important to a group (e.g., the animistic beliefs and sense of custodial responsibility of some native American groups that reflect the importance of the natural environment)	F4a
Patterns of culture across the world (e.g., distribution of a religions and languages, the migration of people).	F4a
The patterns and networks of economic interdependence on Earth's surface.	F4a
The boundaries of primary economic activities (e.g., agriculture, mining, fishing) and the importance of these activities.	F4a
The spatial aspects of systems to deliver goods and services (e.g., the origin-destination flow of products, major U.S. imports and exports and trading partners, the causes, and consequences of world trade interruptions)	F4a
Issues related to the spatial distribution of economic activities (e.g., the relationship between jobs and migration; a large factory or other economic activity moves to another place)	F4a
The relationship between the physical environment and the economy of a region (e.g., the relationship between soybean production in the Midwest and rainfall)	F4a
The patterns of human settlement and their causes.	F4a
Why people choose to settle in different places.	F4a
That differences in population size and density are related to patterns of land form (e.g., flood plains, river valleys, coastal zones), climate, and vegetation.	F4a
Areas of dense human settlement in the middle latitudes (e.g., northern India, parts of Western Europe) and why the are densely populated (e.g., access to transportation, fertile soils, flat land)	F4a
Areas of sparse human settlement (e.g., the Andes, the Arctic) and why they are sparsely populated (e.g., mountainous land, extreme climate)	F4a

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	NCEO CODES
Forces of cooperation and conflict that shape the divisions of Earth's surface.	F4a
Different local spacers in terms of their relationships to economic, political, and social activities (e.g., convenience store as economic space, church as social and cultural space)	F4a
Political units at different scales (e.g., towns, counties, states), how they are separate, and how they are interrelated	F4a
Why Earth is divided into so many countries.	F4a
How Earth's physical and human systems are connected and interact.	F4a
Ways people adapt to or modify the environment (e.g., shelter, fences, irrigation projects, dams, terrace farming, settlement patterns and urbanization).	F4a
Relationships between technology and human modifications to the environment.	F4a
The consequences of the interactions between human and physical systems (2 & 3 only)	F4a
Appropriate concepts and vocabulary used to describe the impact of technology upon the environment (increase of pollution in the air; land and resource degradation; limits and carrying capacity of different environments).	F4a
The varying ability of physical systems to absorb the effects of human activity (area under the swing set, paths produced by dogs in yards, habitat of endangered species, the Dust Bowl, the Sahel)	F4a
Ways human systems affect physical systems, and the positive and negative outcomes (herbicides, fertilizer and pesticides affect water; irrigation leads to salinization; increased urbanization affects distribution of forested land).	F4a
The changing meaning and importance of resources.	F4a
Types of energy used in different parts of the world and reasons for the differences.	F4a
The location and use of renewable, flow, and non-renewable resources.	F4a
The relationship between the location of resources and the distribution of population (relationship of major industrial districts to the location of iron ore and coal; relationship of transportation routes and carrier modes to the location of resources; human migration as a result of the depletion of a resource)	F4a
How technology has changed the way we locate and use resources (enables oil companies to find oil underwater on the continental shelf, enables recycling of materials, enables commercial fisherman to locate schools of fish)	F4a
Advantages and disadvantages related to the use of various natural resources (recycling and reusing materials; damming a river; generating nuclear power)	F4a
Historic and current conflicts and competition regarding the use and allocation of resources (aboriginal Americans and farmers in the Great Plains, slave trade within and outside the continent of Africa, the competition between farmers and urban dwellers for use of the land on the edge of cities)	F4a
How geography is used to interpret the past.	F4a
Geographical factors that have influenced where people live (early migrants to the United States and other places were attracted to geographical characteristics similar to their places of origin when they selected a place to live; pathways such as the Hudson and Mississippi River valleys and the Great Lakes led to early settlement in some areas).	F4a
How some physical features (mountains, oceans) were barriers to historical movement in the United States while others (rivers, valleys, mountain passes) were pathways.	F4a
Geographical backgrounds of various kinds of boundaries and how they have affected historical and current conflicts (the United States-Mexican border along the Rio Grande)	F4a
Global development and environmental issues.	F4a
Characteristics and location of nation in the developing and developed worlds.	F4a
Ecological/technological trade-offs that are taking place in selected areas of the world (changing weather patterns and increased soil salinization in the Nile Valley due to the Aswan Dam)	F4a
The concept of sustainable development (nature and use of renewable and non-renewable resources; methods of managing resources; methods of managing resources such as crop	F4a

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	NCEO CODE
rotation, recycling, water conservation measures)	
24. The study of economics, including:	
a. How economic systems function to address issues of resource allocation, income distribution, and economic stability and growth;	F4a
b. The kinds and functions of economic institutions; and	F4a
c. Concepts for evaluating economic actions and policies.	F4a
How scarcity and choice govern our economic decisions	F4a
The differences between needs and wants	F4a
The influence of incentives, values, traditions and habits on economic decisions	F4a
Examples of private and public goods and services	F4a
How we depend upon workers with specialized skills and how this results in the exchange of goods and services	F4a
How economic systems are made up of a wide range of groups, such as families, workers, banks, labor unions, government agencies, small businesses, and large corporations.	F4a
The role of money in everyday life.	F4a
How the price of something in our economic system is related to how much of it there is and how many people want it.	F4a
How to use economic concepts, such as supply and demand and price, to help explain events in the community and the nation.	F4a
How to apply knowledge of economic concepts in developing a response to a current local economic issue, such as how to reduce the flow of trash into a rapidly filling landfill.	F4a
25. The study of comparative civics and government, including:	
The purposes of government and the role of law in societies;	F4a
The foundation of the American political system;	F4a
How the government established by the Constitution embodies the principles and purpose of American democracy;	F4a
The relationship of American politics and government to world affairs; and	F4a
The roles of the citizen in the American political system.	F4a
What are the foundations of the American political system?	F4a
The fundamental ideas of American constitutional government and their importance for the protection of individual rights and the promotion of the common good.	F4a
The meaning and importance of the fundamental values and principles of American constitutional democracy.	F4a
Common attitudes and beliefs of Americans toward society, politics, and government.	F4a
The value and challenges of diversity in American life.	F4a
The importance of shared political values and principles to American society.	F4a
Dispositions or traits of character which may enhance a person's effectiveness in participating in our constitutional democracy and in promoting its healthy functioning.	F4a
How does the government established by the Constitution embody the principles and purposes of American democracy?	F4a
The basic organization of the national government.	F4a
The major ways to limit the powers of the national government and their importance.	F4a
Examples of ways the national government protects individual rights and promotes the common good.	F4a
The most important responsibilities the Oregon constitution gives to state government.	F4a
The most important responsibilities of their local government.	F4a
The members of the legislative branches and the heads of the executive branches of their local, state, and national governments.	F4a
What is the relationship of American politics and government to world affairs?	F4a
How the world is organized politically.	F4a
How nation-states interact with each other.	F4a

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	NCEO CODE
How United States foreign policy is made and the means by which it is carried out.	F4a
The role of major international organizations in the world today.	F4a
The influence of American political ideas on other nations.	F4a
Proposals for dealing with significant political, demographic, and environmental developments in the world.	F4a
What are the roles of the citizen in the American political system?	F4a
The meaning of citizenship in the United States.	F4a
How one becomes a citizen of the United States.	F4a
Why personal rights are important to the individual and to a democratic society.	F4a
Why political rights are important to the individual and to a democratic society.	F4a
Why economic rights are important to the individual and to a democratic society.	F4a
The importance of individuals assuming their personal responsibilities in order to American democracy to flourish.	F4a
The importance of individuals willingly assuming their public responsibilities in order for American democracy to flourish.	F4a
How participating in public life may help Americans attain their individual and community goals.	F4a
The means by which citizens can influence the decisions and actions of their governments.	F4a
How to evaluate and apply criteria useful in evaluating rules and laws.	F4a
The importance of political leadership and public service in their school, community, state, and nation.	F4a
How to explain and apply criteria to evaluate issues, positions, and the actions of political leaders.	F4a
26. The study of core ethical values which our society shares and holds important including, but not limited to, respect, responsibility, trustworthiness, caring, honesty, justice and fairness, citizenship, and civic involvement.	F4a
Models of the core ethical values through literature and history.	F4a
The importance of the core ethical values to individuals and society.	F4a
Meanings of the core ethical values at the appropriate developmental level (i.e., what does it mean to be fair? What does it mean to be trustworthy?).	F4a
Introduction to values dilemmas (i.e., circumstances in which two or more "good" values come into conflict).	F4a
Why it is sometimes difficult to practice the core ethical values (i.e., needs and desires of self vs. needs and desires of others).	F4a
27. The study of one's own cultural heritage, our nation's heritage and the diverse cultural traditions and contributions of other peoples and nations to that heritage.	F4a
The commonalities and differences in the ways groups, societies, and cultures address similar human needs and concerns.	F4a
How experiences may be interpreted differently by people from diverse cultural perspectives and frames of references.	F4a
Ways in which language, stories, folk tales, music, and artistic creation as expressions of culture influence behavior of people living in a particular culture.	F4a
Ways in which people from different cultures compare in the ways they think and deal with their physical environments and social conditions.	F4a
Examples of the importance of cultural unity and diversity within and across groups.	F4a
28. The study of interactions among diverse individuals, groups (e.g., ethnic, age), institutions (e.g., family, school), and systems (e.g., economic, political).	F4a
Concept of role (learned behavior patterns) in group situations (e.g., student, family member, peer play group, club member).	F4a
Concept of institutions (organizations having an educational, religious, or social purpose, [e.g., schools, churches, clubs, government]).	F4a

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		NCEO CODE
	Examples of tensions between and among individuals, groups or institutions, and how belonging to more than one group can cause tensions.	F4a
	Examples of the role of institutions in furthering both continuity and change.	F4a
	Examples of group and institutional influences on people, events, and elements of culture (e.g., school calendar, laws, peer pressure).	F4a
	How groups and institutions work to meet individual needs and promote the common good and examples of where they fail to do so.	F4a
29.	SEE #10 ABOVE.	
30.	The development of speaking, listening, reading and writing in a second language (with emphasis on speaking and listening) within the appropriate cultural contexts.	F4a
	Throughout Stage 2 students will develop the ability to:	
	1. Perform all the functions described in Stage 1 plus:	
	a. Make requests (Function) in social interaction which is face-to-face, lists, surveys, notes, and postcards (Context), using simple questions and short sentences in the productive mode (Text Type) which demonstrate awareness of culturally appropriate behavior. The message will be effectively communicated (Accuracy in Familiar Situation);	F4a
	b. Obtain information (Function) from culturally authentic materials (e.g., menus, schedules, charts, graphs, maps, video, texts, signs, posters, computer networking, and face-to-face interactions (Context) using simple questions and understanding short texts enhanced by visual clues. In the productive mode the questions will be effectively communicated. In the receptive mode most important information will be understood (Accuracy in Familiar Situation); and	F4a
	c. Understand some ideas and some familiar details (Function) in classroom conversations with teacher and in short readings, poems, and proverbs (Context) presented in measured speech and in uncomplicated paragraphs (Text Type) with few errors in comprehension (Accuracy in Familiar Situation).	F4a
31.	The study and practice of individual physical, social, and emotional health strategies, including assessing and managing controllable health risks and safe/healthy environments.	C1, C2, C3, F4
	Controllable Health Risks. The healthy student can identify, understand, assess (physical, emotional, and social strategies) and manage appropriately the following controllable health risks:	
a.	Tobacco;	C2d
b.	Alcohol and other drugs;	C2d
c.	Teen pregnancy, STD, AIDS/HIV;	C2c
d.	Unintentional/intentional injuries;	C2a
e.	Obesity; and	C3a
f.	Physical inactivity.	C3a
	Demonstrate effective and appropriate refusal skills.	F, G
	Examine short- and long-term consequences of safe, risky, and harmful behaviors.	C2a, C2d
	Demonstrate the ability to maintain positive health behaviors.	C1
	Demonstrate strategies to improve personal and family health.	C1, C2
	Critique messages from media, technology, and other sources that impact health behaviors.	C1, C2, F2a
	Interrelationship of physical, emotional, sexual health during childhood.	C1, C2
	Analyze a school health issue using a variety of sources.	C1, C2, F2a
	Safe and Healthy Environments. The healthy student is able to create, support and be supported by safe and healthy environments.	C1, C2
	Demonstrate skills for resisting abuse or exploitation.	C2a

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		NCEO CODE
	Demonstrate the methods of avoiding threatening situations involving other people.	C2a, G4
	Demonstrate methods to obtain assistance when confronted with dangerous circumstances.	C2a, D3c
	Identify action that can be taken by individuals living in an abusive situation.	C2a
	Demonstrate refusal and negotiation skills.	D, G
	Employ positive strategies to prevent conflict in school.	G4
	Analyze the impact of the environment on health.	F4
	Demonstrate first aid procedures for responding to and preventing further injury.	C2a
	Demonstrate safety procedures for appropriate natural disasters (earthquake, fire, etc.).	C2a
32.	The development of lifetime wellness behaviors including physical strength, flexibility, cardiovascular endurance, and movement skills.	C1
	Lifetime Wellness. The healthy student understands the importance of living a healthy life for an entire lifetime and develops a commitment to practicing lifetime wellness.	C1
	Analyze the impact of the environment on health.	F4
	Recognize that health problems should be detected and treated early.	C2c
	Identify a variety of resources from home, school, and community that provide accurate health information.	F4
	Identify the factors that support the credibility of health information.	F2a, F4
	Identify the steps in a decision-making process.	F2a, F4
	Demonstrate the ability to apply a decision-making process to health issues and problems.	C1
	Describe the relationship between verbal and non-verbal communication.	F1
	Express needs, wants, and feelings appropriately.	G1b
	Demonstrate strategies to positively manage stress.	G1
	How to:	
	While traveling, avoid or catch an individual or object.	C3
	Leap, leading with either foot.	C3
	Roll, in a backward direction, without hesitating or stopping.	C3
	Transfer weight, from feet to hands, at fast and slow speeds using large extensions (e.g., mule kick, handstand, cartwheel).	C3
	Throw a variety of objects demonstrating both accuracy and distance (e.g., Frisbees, deck tennis rings, footballs).	C3
	Continuously strike a ball to a wall or a partner with a paddle using forehand and backhand strokes.	C3
	Consistently strike a ball using a golf club or hockey stick so that it travels in an intended direction and height.	C3
	Design and perform gymnastics and dance sequences that combine traveling, rolling, balancing, and weight transfer into smooth, flowing sequences with intentional changes in direction, speed, and flow.	C3C3
33.	The exploration of individual interests, aptitudes, and abilities in relation to career development, including the establishment of educational, career, and other goals related to life roles.	no match
	Self-Knowledge	
	Positive characteristics of self as seen by self and others.	G2a, G2b
	Environmental influences on interests, attitudes, aptitudes, and behaviors.	no match
	How to respect the feelings and beliefs of others.	G3a
	How behavior influences the feelings and actions of others.	no match
	How to relate feelings to significant life experiences.	no match
	Respect for the feelings and beliefs of others.	G3a
	Educational and Occupational Exploration	
	How skills taught in school subjects are used in various occupations.	no match

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		NCDG CODE
	How to relate current learning to careers.	no match
	Describing jobs that are present in the local community.	no match
	How to use school and community resources to learn about careers.	no match
	Group membership skills, including conflict resolution.	G4b
	Contributions workers make to society.	no match
	Work related activities in the home, community, and school.	E1a, E1c
	Career Planning and Decision-Making	
	How to identify possible outcomes of decisions.	F2a
	Experiencing a variety of career exploration programs and processes.	no match
	How contributions of individuals both inside and outside the home are important.	no match
	How personal beliefs and attitudes affect decision-making.	no match
34.	The study of	
a.	family relationships including how families function to meet the needs of their numbers; and	F4
b.	human development across the life span with emphasis on child development, parenting education, and aging.	F4
	WORK IN PROGRESS	
35.	The study of individuals and families as producers and consumers of goods and services.	F4
	WORK IN PROGRESS	
36.	The study of the relationship among individuals, families, and community environments in which they live, work, and contribute.	F4
	WORK IN PROGRESS	

Pennsylvania

Document Utilized

Regulations of the State Board of Education, 22 Pa. Code Chapter 5 (July, 1993)

Background

In 1991, the state board of education called for Pennsylvania to develop outcomes for what students should know and be able to do. The state has articulated 53 outcomes in nine academic areas: arts and humanities, career education, citizenship, communications (reading and writing), environmental studies, home economics, mathematics, science and technology, and wellness and fitness. The 53 outcomes are grouped into four categories: primary, intermediate, middle, and high school. The outcomes are mandatory, but each district decides which grades fall into each category. The state intends to create voluntary content standards separate from the 53 outcomes.

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	The Student learning outcomes describe the skills and abilities which students will be expected to demonstrate before graduating from a public school.	
1.	High academic achievers.	no match
2.	Self-directed, lifelong learners.	no match
3.	Responsible, involved citizens.	D, E1c
4.	Collaborative, high-quality contributors to the economic and cultural life of their communities.	no match
5.	Adaptive users of advanced technologies.	F5a
6.	Concerned steward of the global environment.	D, E
7.	Healthy, continuously developing individuals.	C
8.	Caring, supportive family and community members.	D1a
1.	Self-worth Public schools should help students develop capabilities, talents, self understanding and a feeling of self-worth and acknowledge students for effort and achievement.	G2a, G2b
2.	Information and thinking skills Public schools should help students develop the skills necessary to locate and manage information, solve problems and make decisions, including the processes of analysis, synthesis, creativity and evaluation.	F2a
3.	Learning independently and collaboratively Public schools should encourage students to become independent life-long learners and to collaborate with others in developing knowledge, skills and new ideas.	G4
4.	Adaptability to change Public schools should prepare students to grow and develop in a world in which change is normal and constant.	no match
5.	Ethical judgment. Public schools should teach students the importance of making ethical judgments for the common good.	D, E
6.	Honesty, responsibility and tolerance Public schools should convey to students the need for honesty, integrity, individual responsibility and tolerance.	D, G3
f.	The quality school provides instruction throughout the curriculum so that each student may achieve the following academic goals:	
1.	Communications Each student shall become proficient in reading, composition, listening, speech, understanding, interpreting, analyzing and synthesizing information.	F1a, F3b, F3c

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2. Mathematics Each student shall become proficient in the use of varied mathematical process and applications to solve challenging problems and to create new ways of understanding information	F2a, F3a
3. Science and Technology Each student shall become proficient in applying the processes of analysis, synthesis and evaluation to the solution of challenging scientific problems and in the application and understanding of technology in society.	F2a, F5a
4. Environment and Ecology Each student shall understand the environment and the student's ecological relationship with it in order to recognize the importance of the quality of life in a healthy and balanced environment.	no match
5. Citizenship Each student shall understand local, State and United States history, geography, systems of government and economics and their relationship to the history, geography, systems of government and economics of other countries in the world and shall acquire and have opportunities to practice, in the school and in the community, the skills necessary for active participation in civic life.	E1a, E1c
6. Arts and Humanities Each student shall understand and appreciate the breadth of human accomplishment through the arts and humanities and shall have opportunities to practice creativity of thought and action and to demonstrate talent in the arts.	F4b
7. Career Education and Work Each student shall explore varied career options and develop the skills and work habits needed to be productive, contributing member of society and the understanding that lifelong learning is necessary to maintain those behaviors, skills and attitudes.	D3, E1c
8. Wellness and Fitness Each student shall acquire and use the knowledge and skills necessary to promote individual and family health and wellness.	C1
9. Home Economics Each student shall understand and apply principles of money management, consumer behavior and child health to provide for personal and family needs.	no match
§ 5.202. STUDENT LEARNING OUTCOMES	
a. In designing educational programs, school districts shall provide for the attainment of the student learning outcomes under subsection (f) and any other student learning outcomes which they develop and describe in their strategic plans under § 5.203(c) (relating to strategic plans) as requirements for graduation from high school. Achieving the outcomes in this section requires students to demonstrate the acquisition and application of knowledge and appropriate actions. Achieving the outcomes does not require students to hold or express particular attitudes, values or beliefs.	no match
b. A school district's curriculum shall be designed to provide all students with focused learning opportunities needed to attain these outcomes.	no match
c. As required by § 5.203(c)(3), school districts shall develop outcomes to be attained by students at transition points from one organizational level to another and may develop outcomes to be attained at additional transition points. These transitional outcomes shall be designed to assure that students are making progress toward attainment of the outcomes needed to graduate from high school. The school district assessment plan under § 5.203(c)(5) shall include a description of how the transitional outcomes are measured by the district and how information from the school district assessments is used to assist students having difficulty meeting the transitional outcomes.	no match
d. School districts shall develop standard for assessing the attainment of the outcomes under subsection (f) and any other student learning outcomes which they develop and describe in their strategic plans under § 5.203(c) for purposes of high school graduation and strategies for assisting students to attain them.	no match

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e. The student learning outcome in subsection (f) shall be attained by students in various ways and shall be assessed by school districts in various ways. Some will result from successful completion of a course; some from successful completion of a series of courses; some from independent study, community service or work experience; some from participation in extracurricular activities. Some students may meet some outcome expectations before they come to school. Exceptional students may meet outcome expectation by completion of their Individualized Education Programs under § 14.32 (relating to IEP). Some outcomes will be assessed by traditional test; some by other forms of assessment under § 5.232 (relating to school district assessment); some by teacher observation of student performance in school; some by attainment of IEP goals. Some students will need more instruction in some areas than other, and school districts are responsible for organizing programs to best accommodate the needs of their students.	no match
(f) School district shall prepare all students to attain the following student learning outcomes.	
1. Communications	
i. All students use effective research and information management skills, including location primary and secondary sources of information with traditional and emerging library technologies.	F4, F5a
ii. All students read and use a variety of methods to make sense of various kinds of complex texts.	F3b
iii. All Students respond orally and in writing to information and ideas gained by reading narrative and informational texts and use the information and ideas to make decisions and solve problems.	F1a, F3c
iv. All students write for a variety of purposes, including to narrate, inform and persuade, in all subject areas.	F3c
v. All students analyze and make critical judgments about all forms of communication, separating fact from opinion, recognizing inconsistencies and judging the validity of evidence.	F2a
vi. All students exchange information orally, including understanding and giving spoken instructions, asking and answering questions appropriately and promoting effective group communications.	F1a, G4
vii. All students listen to and understand complex oral messages and identify their purpose, structure and use.	F1
viii. All students compose and make oral presentations for each academic area of study that are designed to persuade, inform or describe.	F1
2. Mathematics	
i. All students use numbers, number systems and equivalent forms (including numbers, words, objects and graphics) to represent theoretical and practical situations.	F3a
ii. All students compute, measure and estimate to solve theoretical and practical problems, using appropriate tools, including modern technology such as calculators and computers.	F2a, F3a, F5a
iii. All students apply the concepts of patterns, functions and relations to solve theoretical and practical problems.	F2a, F3a
iv. All students formulate and solve problems and communicate the mathematical processes used and the reasons for using them.	F2a, F3a
v. all students understand and apply basic concepts of algebra, geometry, probability and statistics to solve theoretical and practical problems.	F2a, F3a
vi. All students evaluate, infer and draw appropriate conclusions from charts, tables and graphs, showing the relationships between data and real-world situations.	F3a
vii. All students make decisions and predictions based upon the collection, organization, analysis and interpretation of statistical data and the application of probability.	F3a
3. Science and Technology	
i. All students explain how scientific principles of chemical, physical and biological	F4a

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phenomena have developed and relate them to real-world situations.	
ii. All students demonstrate knowledge of basic concepts and principles of physical, chemical, biological and earth sciences.	F4a
iii. All students use and master materials, tools and processes of major technologies which are applied in economic and civil life.	F4a, F5a
iv. All students explain the relationships among science, technology and society.	F4a
v. All students construct and evaluate scientific and technological systems using models to explain or predict results.	F4a, F5a
vi. All students develop and apply skills of observation, data collection, analysis, pattern recognition, prediction and scientific reasoning in designing and conducting experiments and solving technological problems.	F2a, F4a
vii. All students evaluate advantages, disadvantages and ethical implication associated with the impact of science and technology on current and future life.	F4a
viii. All students evaluate the impact on current and future life of the development and use of varied energy forms, natural and synthetic materials, and production and processing of food and other agricultural products.	F4a
4. Environment and Ecology	
i. All students understand and describe the components of ecological systems and their functions.	F4a
ii. All students analyze the effects of social systems, behaviors and technologies on ecological systems and environmental issues.	F4a
iii. All students think critically and generate potential solutions to environment issues.	F2a, F4a
iv. All students evaluate the implications of finite natural resources and the need for conservation, sustainable agricultural development and stewardship of the environment.	F4a
5. Citizenship	
i. All students demonstrate an understanding of major events, cultures, groups and individual in the historical development of Pennsylvania, the United States and other nations, and describe themes and patterns of historical development.	F4a
ii. All students demonstrate understanding of themes and patterns of geography, know the location of major bodies of water, land masses and nations, and describe the relationships between geography and historical, economic and cultural development.	F4a
iii. All students describe the development and operations of economic, political, legal and governmental systems in the United States, assess their own relationships to those systems and compare them to those in other nations.	F4a
iv. All students examine and evaluate problems facing citizens in their communities, State, nation and world by incorporating concepts and methods of inquiry of the various social sciences.	F4a
v. All students develop and defend a position on current issues confronting the United States and other nations, conducting research, analyzing alternatives, organizing evidence and arguments, and making oral presentation.	F4a
vi. All students explain basic economic concepts and the development and operation of economic systems in the United States and other nations, and make informed decisions about economic issues.	F4a
vii. All students demonstrate their skills of communicating, negotiating and cooperating with others.	F1, G1
viii. All students demonstrate that they can work effectively with others.	G4b
ix. All students demonstrate and understanding of the history and nature of prejudice and relate their knowledge to current issues facing communities, the United States and other nations.	F4a
6. Arts and Humanities	
i. All students describe the meanings they find in various works from the visual and performing arts and literature on the basis of aesthetic understanding of the art form.	F4b

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ii. All students evaluate and respond critically to works from the visual and performing arts and literature of various individuals and cultures, showing that they understand important features of the works.	F2a, F4b
iii. All students relate various works from the visual and performing arts and literature to the historical and cultural context within which they were created.	F4b
iv. All students produce, perform or exhibit their work in the visual arts, music, dance or theater, and describe the meanings their work has for them.	F4b
7. Career Education and Work	
i. All students explore the multiple purposes of work and the range of career options, including entrepreneurship, and relate them to their individual interests, aptitudes, skills and values.	F4
ii. All students assess how changes in society, technology, government and the economy affect individuals and their careers and require them to continue learning.	F4
iii. All students understand and demonstrate the importance of relating their academic and vocational skills--for example, interviewing, creative thinking, decision making, problem-solving, understanding and giving written and oral instructions-to their ability to seek, obtain, maintain and change jobs.	F1a, F2a, F4
iv. All students completing a vocational-technical education program exhibit the skills required to succeed in a particular occupation for which they have prepared.	F4
8. Wellness and Fitness	
i. All students develop knowledge of injury prevention and treatment and the ability to respond appropriately in emergency situations.	C2
ii. All students recognize and demonstrate the ability to apply dietary guidelines to meet nutritional needs at various stages of life.	C1a
iii. All students demonstrate their knowledge of benefits associated with physical fitness and good personal health habits including health promotion and disease prevention.	C1, C2b, C2c
iv. All students identify the advantages of avoiding, and develop the skills to avoid, tobacco, alcohol and substance use.	C2d
v. All students demonstrate individual development in motor fitness and physical fitness, including aerobic fitness and skills in lifetime sports and outdoor activities, to promote lifelong physical activity.	C1b, C3a
vi. All students demonstrate leadership skills and the ability to work cooperatively in team sports or other developmentally appropriate group activities.	G4b
9. Home Economics	
i. All students demonstrate their knowledge of principles of consumer behavior as a foundation for managing available resources to provide for personal and family needs.	F4
ii. All students demonstrate their knowledge of basic child health and child care skills.	F4

South Carolina

Documents Utilized

South Carolina Foreign Languages Framework (November, 1993)
South Carolina Visual and Performing Arts Framework (November ,1993)
South Carolina Mathematics Framework (November, 1993)

Note: Other frameworks still under development include science, English/language, arts, health and safety, social studies, and physical education.

Background

In November of 1993, the State Board of Education adopted the first three voluntary frameworks in foreign languages, visual and performing arts, and mathematics. The frameworks present essential components necessary for improving education by setting out broad, circular themes, topics, and objectives in multi-year blocks. It includes clear expectations for all students and programs. Each framework uses different benchmarks. For example, in math, the benchmarks begin with grades K-3. In foreign languages, performance objectives are articulated at the elementary, middle, and high school levels. The state is in the process of revising its achievement assessments and Graduation requirements to incorporate its standards for English, math, and science.

South Carolina

	NCEO CODE
DANCE EDUCATION	
COMPONENT ONE: AESTHETIC PERCEPTION--MULTISENSORY INTEGRATION/TECHNIQUE AND SKILLS	
Goals: To develop an awareness of the body as an instrument of expression.	F4b
To increase movement/dance vocabulary.	F4b
To promote functional and artistic use of the movement/dance elements: body, space, time, dynamics/effort.	F4b
Overview: Aesthetic perception encompasses the range of experiences from awareness and exploration of movement potential to the analysis, selection, and application of the Space, Time, Dynamics/Effort factors to create skilled and refined movement. These successful experiences are the foundation for a sensitive dance participant/observer and enhance self esteem.	
Objectives: Students will be able to:	
Demonstrate an understanding of the key elements of movement/dance vocabulary.	F4b
Demonstrate an increased skill level in the use of body in space, in time, and with dynamic fluency.	F4b
Demonstrate increasing levels of coordination, balance, stamina, elevation, and technique appropriate to age and development.	F4b
Demonstrate kinesthetic awareness of the body in motion and in stillness.	F4b
Demonstrate knowledge and use of anatomically and kinesiologically sound movement principles for safety, efficiency, and longevity as a dancer.	F4b
COMPONENT TWO: CREATIVE EXPRESSION--PROCESS AND PRODUCT	
Goals: To express ideas, feelings, and concepts in dance through the creative process.	F4b
To apply choreographic tools and composition principles in evaluating dance works of self and others.	F4b

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Overview: Creative expression includes gaining skill in using the tools as the creator of dance, recognizing and experiencing the necessity and the joy of exploration and experimentation as prerequisite to composition, and the process of selecting the significant form, structure, and aesthetic factors as a part of refining the product.	
Objectives: Communicate personal feelings and ideas through movement with originality, individual style, and clarity.	F4b
Experience the creative process in dance through experimentation, improvisation, selection and synthesis.	F4b
Use abstract concepts and environmental and sensory stimuli as sources for composing dances.	F4b
Select and organize movement motifs, phrases, and dance compositions for others in informal and performance settings.	F4b
Apply choreographic criteria to assess works in progress and finished pieces by self and others.	F4b
COMPONENT THREE: DANCE HERITAGE--HISTORICAL AND CULTURAL	
Goals: To acquire knowledge of the historical and cultural significance of dance and of the universality of the dance phenomenon, and to develop an awareness of the significance of dance for society.	F4b
Overview: Through participation in a variety of dance styles and through study of print and other visual media, students comprehend universal themes, cultural roots and differences in style, significance of dance in society, and the means for preservation of dance.	
Objectives: Understand that dance reflects, records, and shapes history and plays a role in every culture as a universal language.	F4b
Become aware that dance takes many forms, is a valid form of expression for males and females, and can present and communicate ides in many different ways.	F4b
Demonstrate cultural and historical similarities and differences among dance forms.	F4b
Demonstrate comprehension of a variety of dance styles and proficiency in executing more than one style.	F4b
Recognize the role of the dancer in society as an expressive artist, entertainer, and creator of artistic values and accomplishments of civilization.	F4b
Identify important dance innovators in past and contemporary cultures.	F4b
Identify careers related to dance in contemporary society.	F4b
COMPONENT FOUR: AESTHETIC VALUING	
Goals: To appreciate the art of dance as a communication form, both as the participant and the observer.	F4b
To value the choreographic process and the choreographic criteria, respectively.	F4b
To judge the quality of dance(s) by applying aesthetic principles and choreographic criteria.	F4b
To appreciate the relationship of the skill of the performer to the clarity of the performance.	F4b
To increase dance vocabulary and expressive language in discussing aesthetic valuing.	F4b
Overview: The distinctions between the participant and observer and the process and the product are stressed to keep in proper perspective the importance of the role and impact of each on making judgments of the worth of dance.	
Objectives: Recognize the power of dance as nonverbal communication and creative expression, both as observer and participant.	F4b
Appreciate the universality of dance and other art forms.	F4b
Recognize the traditional great works of dance and their aesthetic values as creative milestones.	F4b
Recognize the difference between the process and product.	F4b
Recognize the necessity for commitment to a project by dancers and creators.	F4b
Apply aesthetic principles and choreographic criteria to judge the quality of dance both as observer and internally as the creator/participant.	F4b
Recognize the relationship between the level of choreographic expertise and the aesthetic	F4b

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sophistication of the dance.	
Make judgments about anatomical and performance factors basic to the technical and performance skill of the performer.	F4b
Utilize accurate terminology when discussing the technical skill of the performer and aesthetic principles and their application to dance works.	F4b
Increase and use correct dance terminology and a variety of synonyms and reference points (historical/cultural) in the discussion of the aesthetics of dance.	F4b
Develop a vocabulary for dance criticisms related to the aesthetics of dance styles.	F4b
DRAMA EDUCATION	
COMPONENT ONE: AESTHETIC PERCEPTION	
Goal: To develop understanding and appreciation of theater concepts and the dramatic process.	F4b
Objectives: Develop internal and external resources within the theater process.	F4b
Understand dramatic concepts through artistic collaboration.	F4b, G4b
COMPONENT TWO: CREATIVE EXPRESSION	
Goal: To develop and expand communication skills, collaborative problem-solving, and modes for self expression through the drama process.	F1, F2a, F4b, G4b
Objectives: Students will be able to:	
Expand verbal and non-verbal communication for expressions.	F1, F4b
Develop personal involvement and response through artistic collaboration.	F4b, G4b
Develop creative applications to interpret and express dramatic concepts.	F4b
COMPONENT THREE: THEATER HERITAGE--HISTORICAL AND CULTURAL	
Goal: To relate and understand the relevance, implications, and consequences of theatre to its social, cultural, and historical context.	F4b
Objectives: Understand the role of theatre in different cultures and how theatre reflects, records, and shapes the history of different cultures.	F4b
Become aware of and understand different dramatic and literary themes, genres, and theatre conventions among different cultures and time periods.	F4b
Appreciate different aesthetic values among individuals and cultures.	F4b
Understand how theatre imitates and exaggerates life, and understand similarities and differences between theatre and life.	F4b
COMPONENT FOUR: AESTHETIC VALUING	
Goal: To develop skills and information to form individual aesthetic judgments in the informal drama process and for formal theater presentations.	F4b
Objectives: Respond to the collaborative process with informed, responsible, and cooperative opinions and judgments.	F4b, G4b
Evaluate formal theater experiences with an understanding of dramatic concepts and theater conventions.	F4b
Utilize aesthetic judgments to develop, analyze, and improve all aspects of the drama process.	F4b
MUSIC EDUCATION	
COMPONENT ONE: AESTHETIC PERCEPTION--CONCEPT DEVELOPMENT	
Goals: To develop sensitivity to the expressive qualities of music.	F4b
To increase aural awareness.	F4b
To encourage musical responsiveness, involvement, and discrimination.	F4b
To promote understanding of the nature and structure of music.	F4b
Objectives: Demonstrate an understanding of how sound is produced and modified.	F4b

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Demonstrate an understanding of the elements of music.	F4b
Demonstrate an understanding of the structure and form of music.	F4b
Demonstrate understanding that will lead to the effective use of written notation.	F4b
COMPONENT TWO: CREATIVE EXPRESSION--SKILLS DEVELOPMENT	
Goals: To become sensitive to the expressive qualities of musical sounds.	F4b
To develop musical responsiveness, involvement, and discrimination.	F4b
To develop skills necessary to become capable and intelligent performers, creators, and consumers of music.	F4b
Objectives: Listen to music attentively and respond appropriately.	F4b
Perform music using a variety of sound sources.	F4b
Communicate musical ideas effectively through the use of notation.	F4b
Demonstrate ability to develop and communicate original musical ideas.	F4b
COMPONENT THREE: MUSICAL HERITAGE--HISTORICAL AND CULTURAL	
Goal: To develop awareness and demonstrate knowledge of the styles, idioms, performance media, and purposes of music that are part of our multicultural heritage.	F4b
Objectives: Identify and become familiar with their own musical heritage.	F4b
Identify some of the expressive elements in the music of different cultures and ethnic groups.	F4b
Describe some of the social and historical situations that have influenced the composition, style, selection, and performance of music.	F4b
COMPONENT FOUR: AESTHETIC VALUING--APPLICATION OF KNOWLEDGE AND SKILLS	
Goal: To provide a sound basis of musical experiences that can be used in making intelligent judgments of musical value.	F4b
Objectives: Demonstrate an understanding of the value and role of music in the lives of individuals and cultures.	F4b
Demonstrate an understanding of how the purpose and function of music in a particular situation have influenced compositions, selections, and performances.	F4b
Demonstrate an understanding of the ways that the elements of music have been combined to produce characteristic styles and forms.	F4b
VISUAL ARTS EDUCATION	
COMPONENT ONE: AESTHETIC PERCEPTION--VISUAL AND TACTILE	
Goal: To develop and expand aesthetic perception.	F4b
Objectives: Increase aesthetic awareness of visual and tactile qualities in works of art, nature, events, and objects within the total environment.	F4b
See the world directly and metaphorically perceiving the physical world in terms of visual and tactile qualities and symbols.	F4b
COMPONENT TWO: CREATIVE EXPRESSION--ARTISTIC KNOWLEDGE SKILLS	
Goal: To develop and expand visual arts knowledge and skills in order to express ideas creatively.	F4b
Objectives: Acquire artistic skills to express and communicate responses to experiences.	F4b
Recognize the importance of personal experiences and respect the originality in their own visual expressions and in the artwork of others.	F4b
Develop manipulative and organizational skills in using art media effectively to translate ideas, feelings, and concepts.	F4b

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COMPONENT THREE: VISUAL ARTS HERITAGE--HISTORICAL AND CULTURAL	
Goal: To acquire knowledge of historical and cultural developments which occur as a result of varying needs and aesthetic points of view.	F4b
Objectives: Study a variety of artworks and accomplishments of contemporary, historic, and prehistoric cultures.	F4b
Understand that art reflects, records, and shapes history and plays a role in every culture.	F4b
Gain an understanding of their creative abilities and their heritage within the context of a comprehensive world view.	F4b
Clarify their own aesthetic values and learn to appreciate differences in the aesthetic values of others.	F4b
COMPONENT FOUR: AESTHETIC VALUING--ANALYSIS, INTERPRETATION, AND JUDGMENT	
Goal: To develop a base for making informed aesthetic judgments.	F4b
Objectives: Make informed responses to works of art, nature, and other objects within the total environment by using objective criteria for analysis, interpretation, and judgment.	F4b
Derive meaning and value form experiences by making and justifying judgments about aesthetic qualities in works of art and other objects within the total environment.	F4b
Use analysis, interpretation, and judgment about visual relationships based on learned aesthetic values to improve art production.	F4b
FOREIGN LANGUAGES FRAMEWORK	
PERFORMANCE OBJECTIVES	
ELEMENTARY SCHOOL In the beginning of a sequential elementary program, focus should be on listening and speaking skills. Reading and writing skills will develop later as students become more proficient in reading and writing in their native language. The following standards are designed to be compatible with standards on the secondary level so a sequential program can be achieved and are based on the assumption that students receive foreign language instruction three to five days a week.	
LISTENING TASKS The student will be able to:	
1. carry out simple commands.	F4
2. respond to questions based on narratives, dialogues or announcements, to be presented either electronically or orally by the teacher.	F4
3. identify and categorize familiar vocabulary items.	F4
4. sequence events based on an oral narrative .	F4
5. draw a picture based on an oral description, narration or command.	F4
SPEAKING TASKS The student will be able to:	
1. answer personal questions	F4
2. role-play form a prepared dialogue	F4
3. respond appropriately in face-to-face conversations	F4
4. describe a picture or object.	F4
5. give a command suggested by a picture	F4
6. relay information to another student	F4
7. describe self or family members	F4
8. use appropriate courtesy phrases	F4
9. express likes, dislikes, preferences	F4

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READING TASKS	
The student will be able to:	
1. scan text for specific information	F4
2. locate specific information in text types, such as menus, newspaper articles, TV schedules, etc.	F4
3. match labels with pictures	F4
4. sequence events based on a reading passage	F4
5. predict the conclusion of a story	F4
6. make checklists of related words in a reading passage	F4
WRITING TASKS	
The student will be able to:	
1. copy words and sentences written in foreign language	F4
2. label pictures or objects	F4
3. list and categorize familiar vocabulary	F4
4. write familiar commands	F4
5. complete dialogues with familiar material	F4
6. fill out simple forms	F4
7. write cards, brief messages, casual invitations, thank you notes.	F4
8. express likes, dislikes, preferences	F4
CULTURAL TASKS	
The student will be able to:	
1. recognize similarities and differences in cultural customs, such as celebrations of holidays	F4
2. recognize and name typical foods	F4
3. sing songs and recite rhymes	F4
4. name and locate countries and major geographical features, such as rivers, mountains and oceans	F4
5. identify flags, landmarks, monuments and major historical figures (care should be taken to avoid stereotypical portrayals when presenting cultural material)	F4
PERFORMANCE OBJECTIVES	
LATIN	
ELEMENTARY SCHOOL TASKS	
The student will be able to:	
1. carry out simple commands [listening]	F4
2. use appropriate greetings and courtesy phrases [speaking]	F4
3. recognize Latin mottos, phrases and abbreviations in daily life (*e pluribus unum*) [reading]	F4
4. identify and categorize familiar vocabulary items with appropriate labels [writing]	F4
5. recognize similarities and differences in cultural customs, such as dress (e.g., toga) [cultural]	F4
MATHEMATICS FRAMEWORK	
STRAND: NUMBER AND NUMERATION SYSTEM, GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
develop number sense for whole numbers, fractions, decimals, integers, and percents;	F3a
develop and use order relations for whole numbers, fractions, decimals, and integers;	F3a
use concrete models to explore ratios and proportions;	F3a
use concrete models to explore primes, factors, and multiples;	F3a
extend their understanding of the relationships among whole numbers, fractions, decimals,	F3a
integers, and percents;	F3a
connect number and numeration systems to their world.	F3a

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STRAND: NUMERICAL AND ALGEBRAIC CONCEPTS AND OPERATIONS GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
understand and explain how the basic arithmetic operations relate to each other;	F3a
extend their understanding of whole number operations to fractions and decimals;	F3a
use models, patterns, and relationships to construct and analyze algorithms for operations on whole numbers, fractions, and decimals;	F3a
model, explain, and develop reasonable proficiency in operations on whole numbers, fractions, and decimals;	F3a
gain confidence in thinking and communicating algebraically;	F3a, G2b
solve real-world and mathematical problem situations using algebraic concepts including variables and open sentences;	F2a, F3a
use mental computation, estimation, and calculators to predict results and evaluate reasonableness of results;	F3a, F5a
understand the concepts of variables, expressions, equations, and inequalities; and	F3a
use models to explore operations on integers.	F3a
STRAND: PATTERNS, RELATIONSHIPS, AND FUNCTIONS, GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
use concrete models and calculators to create and explore patterns;	F3a, F5a
explore, recognize, describe, extend, analyze, and create a wide variety of patterns;	F3a
represent, discuss, and describe functional relationships with tables, one- and two dimensional graphs, and rules;	F3a
analyze and predict functional relationships and make generalizations based on observed patterns;	F3a
explore the use of variables, equations, and inequalities to express relationships; and	F3a
connect patterns, relationships, and functions with other aspects of mathematics and with other disciplines.	F3a
STRAND: GEOMETRY AND SPATIAL SENSE, GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
construct two- and three-dimensional geometric figures with concrete materials;	F3a
identify, describe, classify, and compare two- and three-dimensional geometric shapes, figures, and models according to their attributes;	F3a
develop spatial sense by thinking about and representing geometric figures;	F3a
investigate and predict the results of transformations of shapes, figures, and models, including slides, flips, and turns and combinations of slides, flips, and turns;	F3a
investigate and predict the results of combining and partitioning shapes, figures, and model;	F3a
explore tessellations, symmetry, congruence, similarity, scale, perspective, angles, and networks;	F3a
represent and solve problems using geometric models;	F3a
understand and apply geometric relationships;	F3a
develop an appreciation for geometry as a means of describing the physical world; and	F3a
connect geometry and spatial sense to other aspects of mathematics and to other disciplines.	F3a
STRAND: MEASUREMENT, GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
understand the concepts and attributes of length, capacity, weight (mass), perimeter, area, volume, time, temperature, and angle measure;	F3a
understand the structure and use of nonstandard and standard (customary and metric) systems of measurement;	F3a

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South Carolina

	NCEO CODE
estimate, construct, and use measurement for description and comparison;	F3a
select and use appropriate tools and units to measure to the degree of accuracy required in a particular situation;	F3a
use concrete and graphic models to discover formulas for finding perimeter and area of common two-dimensional shapes;	F3a
use measurements and formulas to solve real-world and mathematical problems; and	F3a
connect measurement to other aspects of mathematics and to other disciplines.	F3a
STRAND: PROBABILITY AND STATISTICS, GRADES 3-6	
Students will participate in problem-solving activities through group and individual investigations so that they can:	F2a, F3a, G4b
model situations by devising and carrying out experiments or simulations to determine probability;	F3a
extend their understanding of probability and statistics by systematically collecting, organizing, discussing, and describing data, using technology whenever appropriate;	F3a, F5a
select and use a variety of representations for displaying data;	F3a
construct, read, and interpret tables, graphs, and charts; and	F3a
make and justify predictions based on collected data or experiments, using technology whenever appropriate.	F3a, F5a

South Dakota

Document Utilized

South Dakota Mathematics and Science Benchmarks--draft (January 1994)

Background

In 1991, South Dakota was awarded a grant from the National Science Foundation to develop mathematics and science standards. In October 1994, South Dakota received a grant from the Innovations in Education Fund from the U.S. Department of Education to create standards in the arts, civics, English, foreign languages, geography, and history. Math and science standards describe student learning for grades K-2, 3-4, 5-8, and 9-12. Standards in the other subjects will describe learning in grades 2, 4, 8, and 12. The standards are voluntary; currently no performance or assessment standards relate to the content standards, although the state has had a testing program in place since 1985. Education officials have to create tests to complement the content standards once they are more fully developed.

South Dakota

	NCEO CODE
MATHEMATICS	
NUMBER SENSE	
Number sense is the ability to interpret and use numbers in counting and measurement situations and to sense the reasonableness of computational results.	
3-4 NUMBER SENSE: BENCHMARKS	
All Students Will:	
1. demonstrate competency in using various modes of computation. (i.e. mentally, calculator, manipulatives etc.)	F3a, F5a
2. model number operations using manipulatives and/or symbols.	F3a
3. compare, order and estimate using numbers.	F3a
4. solve problems using basic operations.	F2a, F3a
5. communicate the reasonableness of estimates and calculations.	F1, F3a
6. model operations with fractions.	F3a
MEASUREMENT	
Measurement is a dimension, quantity, or capacity determined by comparison to a standard unit. The study of measurement shows useful and practical applications of mathematics.	
3-4 MEASUREMENT: BENCHMARKS	
All Students Will:	
1. solve a problem using appropriate measurement tools.	F2a, F3a
2. compare estimated dimensions with actual measurements.	F3a
3. communicate how estimated measurement is used in the world of work.	F1, F3a
PATTERN RELATIONS	
Patterns, Relations and Functions: A pattern is an arrangement of objects or symbols in which relationships can be established.	
3-4 PATTERN RELATIONS: BENCHMARKS	
All Students Will:	
1. organize information to determine a pattern.	F3a
2. represent and describe mathematical relationships.	F3a
STATISTICS	
Statistics and Probability: Statistics is a mathematical tool used to analyze data. Probability is the mathematics of chance.	

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South Dakota

	NCEO CODE
3-4 STATISTICS: BENCHMARKS	
All Students Will:	
1. organize and describe data.	F3a
2. draw conclusions and make predictions using data.	F2a, F3a
3. apply the concepts of chance.	F3a
ALGEBRA	
Algebra is a language of symbols used to communicate concepts, relationships and abstract ideas.	
3-4 ALGEBRA: BENCHMARKS	
All Students Will:	
1. model numerical relationships using manipulatives	F3a
2. represent situations using number sentences which involve a symbol for an unknown.	F3a
3. be able to use problem solving strategies appropriate to elementary school mathematics.	F2a, F3a
GEOMETRY	
Geometry is a language used to communicate the properties of and relationships between objects. Spatial sense involves insights and intuition about two and three dimensional shapes and their characteristics, interrelationships of shape, and the effects of changes to shapes.	
3-4 GEOMETRY: BENCHMARKS	
All Students Will:	
1. communicate the connection between geometry and daily life.	F1, F3a
2. create, describe and classify geometric models.	F3a
3. compare and contrast spatial relationships.	F3a
SCIENCE	
NATURE OF SCIENCE	
The nature of science involves a systematic approach to problem solving through inquiry, observation, validation, experimentation, communication and collaboration.	
3-4 NATURE OF SCIENCE: BENCHMARKS	
All Students Will:	
1. observe, communicate, and compare using their senses and tools to get information from the world around them.	F4a
2. collect, organize and compare observable data.	F4a
3. plan an experiment and predict possible results.	F3a
4. conduct an experiment and communicate their findings to others.	F4a
5. compare what they observe against what they predict.	F4a
SYSTEMS	
A system is a group of related things and processes functioning as a unit for a defined purpose.	
3-4 SYSTEMS: BENCHMARKS	
All Students Will:	
1. identify the parts and characteristics of a system.	F4a
2. identify the organizational structure of a system.	F4a
3. describe and compare changes in a system.	F4a
MODELS	
"A model of something is a simplified imitation that we can help us understand it better. A model may be a device, a plan, a drawing, an equation, a computer program, or even just a mental image." p. 157 Science for All American	
3-4 MODELS: BENCHMARKS	
All Students Will:	

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	NCEO CODE
1. design a model to represent an object or event.	F4a
2. communicate the effects observed when a model is manipulated/changed.	F1, F4a
3. model information using symbolic/graphic representations.	F4a
PATTERNS OF CHANGE	
Patterns of change are variations that occur within models or systems. Consistency, defined as equilibrium, stability, or symmetry, is a concept imbedded within patterns of change.	
3-4 PATTERNS OF CHANGE: BENCHMARKS	
All Students Will:	
1. identify patterns of change by collecting, recording and organizing data.	F4a
2. compare patterns of change within a system or model.	F4a
INTEGRATED BENCHMARKS	
3-4 NATURE OF SCIENCE/NUMBER SENSE	
All Students Will: use numbers to communicate information about an experiment or investigation.	F3a, F4a
3-4 NATURE OF SCIENCE/MEASUREMENT	
All Students Will: select and use appropriate measurement tools during experimentation and/or problem solving.	F2a, F4a
3-4 NATURE OF SCIENCE/PATTERN RELATIONS	
All Students Will: communicate the pattern relationships used to make sense of information they have collected.	F4a
3-4 NATURE OF SCIENCE/STATISTICS	
All Students Will: communicate their conclusions and predictions using data they have gathered during an experiment or investigation.	F1, F4a
3-4 NATURE OF SCIENCE/ALGEBRA	
All Students Will: communicate the results of data collection using numerical relationships.	F1, F3a, F4a
3-4 NATURE OF SCIENCE/GEOMETRY	
All Students Will: create geometric models based on observable data.	F3a, F4a
3-4 SYSTEMS/NUMBER SENSE	
All Students Will: identify and communicate the changes in a system through the use of measurement.	F3a
3-4 SYSTEMS/MEASUREMENTS	
All Students Will: classify parts of a system based on measurement.	F4a
3-4 SYSTEMS/PATTERN RELATIONS	
All Students Will: communicate the organizational structure of a system using patterns.	F1, F4a
3-4 SYSTEMS/STATISTICS	
All Students Will: predict changes in a system based on collected information.	F2a, F3a
3-4 SYSTEMS/ALGEBRA	
All Students Will: communicate the organizational structure of a system using mathematical relationships.	F1, F3a
3-4 SYSTEMS/GEOMETRY	
All Students Will: compare spatial relationships within a system.	F3a

South Dakota

	NCEO CODE
3-4 MODELS NUMBER SENSE All Students Will: design a model that represents a mathematical relationship.	F3a
3-4 MODELS/MEASUREMENT All Students Will: create a model using an appropriate scale.	F3a
3-4 MODELS/PATTERN RELATIONS All Students Will: communicate mathematical relationships using models.	F3a
3-4 MODELS/STATISTICS All Students Will: model data using graphic representations.	F3a
3-4 MODELS/ALGEBRA All Students Will: model problems identified during an experiment or investigation using number sentences involving an unknown.	F3a
3-4 MODELS/GEOMETRY All Students Will: communicate connections between geometry and the natural world using models.	F3a
3-4 PATTERNS OF CHANGE/NUMBER SENSE All Students Will: discover patterns of change using computation.	F3a
3-4 PATTERNS OF CHANGE/MEASUREMENT All Students Will: identify a pattern of change using appropriate measurement tools.	F3a
3-4 PATTERNS OF CHANGE/PATTERN RELATIONS All Students Will: identify and communicate patterns of change.	F3a
3-4 PATTERNS OF CHANGE/STATISTICS All Students Will: communicate patterns of change identified by collecting, recording, and organizing data.	F1, F3a
3-4 PATTERNS OF CHANGE/ALGEBRA All Students Will: identify patterns of change using numerical expressions containing a variable.	F3a
3-4 PATTERNS OF CHANGE/GEOMETRY All Students Will: communicate the connections between geometry and the natural world using patterns of change.	F1, F3a

Utah

Documents Utilized

Elementary Core Curriculum Standards, Levels K-3 (1991)
Elementary Core Curriculum Standards, Levels 4-6 (1991)

Background

In 1989, legislative leaders determined that the state needed to develop content standards for students. In 1991, the work of 11 action teams was presented to the state board of education and legislature. The teams articulated a state core curriculum and methods of assessment. Standards have been developed for the arts, language arts, mathematics, reading, science, and social studies in each grade from K-12. The state core is mandatory for districts, but the assessment standards are voluntary.

Utah

		NG/IO CODE
VISUAL ARTS		
1040-01	The students will develop skills vital to making art by creating form, by graying color, using strategies for beginning a drawing, showing detail, and by drawing objects from varied perspectives (students' products may range from realistic to abstract applications of the objectives) (Participant).	F4b
01	Show depth and place two or more objects in a picture so that the most distant object is higher (98).	F4b
02	Observe and draw the detail of real objects, i.e., patterns or wrinkles in cloth, the parts of a mechanical object, and the veins of a leaf (105).	F4b
03	Add gray to a color to change its intensity (111).	F4b
04	Draw objects with a light side and a shadow side (113).	F4b
05	Begin a drawing with methods such as blocking in, simplifying as stick figures, and drawing the action.	F4b
06	Show that value, color, and texture can add interest to a form, e.g., changing planes, coloring, or adding texture (102).	F4b
07	Use a variety of media and materials in implementing the objectives of Standard 1.	F4b
1040-02	The students will develop skills vital to looking at and discussing aesthetic form by describing depth, variety, shadows, moods, feeling, unity, and movement in a picture (Observer/Listener).	F1, F4b
01	Point out where an artist has created movement in a work of art by repeating elements in his design (99).	F4b
02	Point out ways in which artists have used value, color, and texture to add interest to their work (102).	F4b
03	Identify the value key of three different art prints and discuss how they depict moods or feelings (114).	F4b
04	Tell how feelings of depth in a picture can be reduced, i.e., using flat shapes, keeping color the same value or intensity, and minimizing detail (116).	F4b
05	Look at works of art and tell how the artists varied the space division to make them more interesting (120).	F4b
06	Point out how the shape of shadows can appear to be different from the shape of the objects casting them (100-101).	F4b
07	Tell how objects may have surprisingly different characteristics when viewed from varied perspectives (106).	F4b
1040-03	The students will develop skills vital to analyzing and evaluating works of art and studying the artists that produced them by describing works of art, telling how artists get ideas for their work, and comparing the works of five artists (Critic).	F4b

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		NCEO CODE
01	Compare similarities and differences in the styles of artists (104).	F4b
02	Describe works of art with terms such as portrait or landscape, abstract or realistic, painting or sculpture, and drawing or print (109).	F4b
03	Identify at least four themes found in works of art and describe ways which artists treat themes, i.e., love, conflict, the sea, and ballet(117).	F4b
04	Tell how artists get ideas for their work, e.g., nature, other people, imagination, experimentation, and events (121).	F4b
05	Tell how artists use symbols to express moods, feelings, and ideas, i.e., Cupid (symbol of love), the cross (a religious symbol), the flag (a symbol of America) (122).	F4b
06	Compare the works of Cezanne, Bellows, Kollwitz, Van Gogh, and Vermeer, along with those introduced in Level 1 (Hicks, Homer, Klee, Pollock, and Remington).	F4b
MUSIC		
1540-01	The students will develop vocal techniques and skills related to singing a variety of songs with expression (Participant).	F4b
01	Sing songs accurately with a relaxed natural tone using correct posture and breathing habits.	F4b
02	Sing a variety of songs including fold, patriotic, Utah, and singing games.	F4b
03	Sing melodies, rounds, chants, ostinatos, descants, and partner songs.	F4b
04	Sing with expression through the use of proper dynamics, and tempo.	F4b
1540-02	The students will develop techniques and skills related to playing rhythmic and melodic instruments emphasizing rhythmic patterns. (Participant)	F4b
01	Perform rhythm patterns in 2/4, 3/4, and 4/4 time on melody and/or percussion instruments.	F4b
02	Play one or more classroom instruments including recorders, autoharps, or tone bells.	F4b
1540-03	The students will develop listening techniques and skills involved in identifying rhythm, melody, dynamics, form, mood, and orchestral and band instruments as well as conducting a simple rhythm pattern (Observer/Listener, Critic).	F4b
01	Conduct a two-beat pattern.	F4b
02	Identify meter, mood, tempo, and dynamics while listening to various types of music.	F4b
03	Identify the common orchestral and band instruments by sight and sound.	F4b
04	Identify two-part (AB) and three-part (ABA) forms.	F4b
05	Become familiar with at least one composition of each of the following composers: Wolfgang Amadeus Mozart (Example: "Minuet, Symphony No. 40"); Franz Schubert (Example: "March Militaire"); Bedrich Smetana (Example: "The Moldau")	F4b
1540-04	The students will read musical language, particularly sound/symbol relationships and simple melodies. (Participant, Critic)	F4b
01	Identify and understand music symbols, terms, and signs which include sharp, flat, natural, key signature, dotted note, repeat, tie, slur, fermata, and ritard.	F4b
02	Read the notes of a simple melody using syllables, numbers, and/or letter names.	F4b
1540-05	The students will respond to music artistically and create accompaniments to melodies. (Participant, Observer/Listener)	F4b
01	Respond to music through activities such as movement and dance.	F4b
02	Create accompaniments to melodies using the voice or musical instruments.	F4b
DRAMA		
4040-07	The students will learn about and experience the techniques of drama (DRAMA: Participant, Observer/Listener, Critic).	F4b
01	Work cooperatively in planning improvisations or story dramatizations.	F4b
02	Demonstrate appropriate movements and actions to communicate size, shape, and	F4b

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		NCEO CODE
	weight of imaginary objects.	
03	Read a selection expressing appropriate emotion.	F4b
04	Describe the physical characteristics of a given character in a story or play.	F4b
05	Give and support opinions of a production.	F4b
06	Make up a character to fit a given costume piece, e.g., cowboy hat, shawl, glasses.	F4b
DANCE		
7540-06	The students will identify, describe, and perform a variety of individual dance forms and participate in group dances (DANCE: Participant, Observer/Listener, Critic).	F4b
01	Recognize simple musical forms such as ABA (chorus-verse-chorus), and simple rounds, and create movement using these forms.	F4b
02	While dancing, focus with eyes and body parts on different levels and in different directions, i.e., focusing with eyes, chest, elbow, knee, and back.	F4b
03	Dance simple rhythmic patterns with various kinds of musical accompaniments. Repeat the rhythmic patterns adding compatible movement qualities such as sustained, percussive, swing, collapse, and vibratory.	F4b
04	Design and perform floor and air patterns using straight and curved lines.	F4b
05	Create a movement sequence or dance using exaggeration, distortion, or repetition.	F4b
06	Perform several traditional folk or square dances such as "Horse and Buggy Schottische," "Gustof's Skoal," "Seven Jumps," "Old Dan Tucker," "Oh Johnny," etc.	F4b
07	Analyze another group's dance performance and identify the beginning, middle, and end.	F4b
INFORMATION TECHNOLOGY STUDIES		
2040-01	The students will use each component of a computer (technology) system correctly.	F5a
01	Demonstrate the appropriate procedures for preparing a printer to print.	F5a
02	Identify and avoid potential hazards and abuses to printers and printer stations.	F5a
2040-02	The students will demonstrate proper keyboarding techniques.	F5a
01	Demonstrate proper keyboarding techniques while increasing speed and maintaining accuracy.	F5a
02	Identify proper skills for keyboarding from copy.	F5a
03	Demonstrate proper usage of SHIFT and numerals on top row to obtain commonly used symbols ($, &, @, etc.).	F5a
04	Demonstrate proper keyboarding skills whenever using a word processor.	F5a
2040-03	The students will understand the major social and ethical issues in the field of information technology.	F5a
01	Demonstrate appropriate conduct during technology work periods.	D1a, F5a
2040-04	The students will use application software to accomplish a variety of tasks.	F5a
01	Demonstrate the procedures for loading and saving a word processing file.	F5a
02	Create a word processing file consisting of a paragraph.	F5a
03	Print a word processing file.	F5a
04	Describe non-computerized data bases, e.g., telephone book, dictionary, card catalog, chart of Utah counties information, etc.	F4
05	Load and use a prepared data base to locate and categorize data.	F5a
06	Use a desktop publishing package to design and produce a sign.	F5a
2040-05	The students will use technology to develop problem-solving skills.	F2a, F5a
01	Use appropriate grade level simulation and problem-solving software.	F5a
02	Relate computer use to real-life, problem-solving situations at the level of the student's understanding.	F5a

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		NCEO CODE
03	Explain that a person creates a set of instructions (using a computer language) which causes a computer to solve a problem.	F5a
04	Participate in a demonstration of the computer's ability to do repetitive, large tasks with speed and accuracy.	F5a
LANGUAGE ARTS		
4040-01	The students will listen at different levels of understanding and respond with appropriate words or actions (LISTENING).	F1, F4a
01	Follow three- or four-step directions.	F1
02	Retell the story line (plot) of the narratives.	F1, F4a
03	Draw conclusions from a speaker's message.	F2a, F4a
04	Listen attentively to comments of others.	F1
05	Respond to speakers, e.g., ask questions and make contributions.	F1
06	React to literary selections read aloud.	F4b
4040-02	The students will verbally communicate ideas, information, opinions, descriptions, and feelings as they participate in conversations and discussions (SPEAKING).	F1a
01	Answer and ask questions related to the topic.	F1, F4a
02	Use expressive speech to add meaning and interest to personal experiences.	F1a
03	Continued to develop and expand spoken vocabularies.	F4a
04	Select a subject of interest and speak about it.	F1a, F4a
05	Memorize and recite poetry, and perform creative dramatics.	F4b
06	Contribute ideas in group discussions.	G4b
07	Use appropriate language in formal and informal situations.	F1a
4040-03	The students will increase their reading vocabularies through structural and contextual clues, and strengthen comprehension techniques, particularly reading study skills (READING).	F4a
01	Apply sound-symbol relationships and structural analysis to word recognition.	F4a
02	Develop fluency in oral reading by using intonation and expression and by observing punctuation conventions.	F3b
03	Develop greater knowledge of word meanings through contextual clues.	F4b
04	Answer written and oral questions that require recall of facts.	F1, F3b, F4a
05	Retell the story lines (plots) of the narratives or list sequence of events in a reading selection.	F1, F4a
06	Locate main ideas and identify important details in written selections.	F4a
07	Identify fact and opinion elements in a written selection.	F4a
08	Predict a logical outcome of a reading selection.	F4a
09	Use books, people, and reference materials as sources for information.	F4a
10	Interpret basic symbols on graphs, legends, maps, charts, etc., found in grade level text.	F4a
11	Locate words in dictionary, using guide words, entry words, and pronunciation keys.	F4a
12	Read and follow directions.	F3b
4040-04	The students will expand their involvement with children's classics and authors while they increase the quality and quantity of self-selective reading (LITERATURE).	F4b
01	Read a variety of self-selected works.	F3b
02	Differentiate between fiction and nonfiction narratives.	F4b
03	Describe story elements: Main characters, plots, and setting.	F4b
04	Interpret the meaning of figurative language as it occurs in context.	F4b
05	Recognize different purposes of reading selections, e.g., to inform, to persuade, to entertain.	F4a
06	Read poetry for content and feelings.	F4b
07	Express personal reactions to the authors' works.	A2a, F4b

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		NCEO CODE
4040-05	The students will correctly spell words needed to express ideas and information and demonstrate proficiency in cursive writing skills (SPELLING AND PENMANSHIP).	F3c
01	Recognize and correct misspelled words using a dictionary when necessary.	F3c, F4a
02	Apply the patterns and rules that influence the spelling of words.	F3c
03	Master a basic word list as adopted by the school.	F4a
04	Discriminate between correct and incorrect spelling of words.	F4a
05	Produce a legible cursive manuscript.	F3c
06	Increase speed of writing while maintaining neatness.	F3c
4040-06	The students will increase skills using the writing process to express ideas and experiences related to self and others (WRITTEN COMPOSITION).	F3c
01	Use prewriting strategies, e.g., brainstorming, listing, mapping, etc.	F3c
02	Write personal compositions, e.g., friendly letters, journals, poems, or autobiographies.	F3c
03	Compare accurate descriptions of a variety of objects, people, or places, e.g., talk-write activity with art project, cooperative learning group activities, games, guided imagery, and records of weather observations.	F4a
04	Write stories, e.g., cliff-hangers, new endings for old fairy tales, cumulative stories.	F3c
05	Prepare informative projects using resources from the library media center and other appropriate locations, e.g., news articles, directions, displays, or television guides.	F3c, F4a
06	Compose selections to convince others of opinion, e.g., want ads, commercials, letters, bumper stickers, license plates.	F3c, F4a
07	Continue to use nouns and verbs correctly within the writing process.	F3c
08	Share and respond to writing of others.	F3c, G4
09	Practice the editing skills of correct spelling, legible writing, and punctuation (including quotation marks, commas, and apostrophes).	F3c
4040-07	The students will learn about and experience the techniques of drama.	F4b
01	Work cooperatively in planning improvisations or story dramatizations	F4b
02	Demonstrate appropriate movements and actions to communicate size, shape, and weight of imaginary objects.	F4b
03	Read a selection expressing appropriate emotion.	F3b, F4b
04	Describe the physical characteristics of a given character in a story or play.	F4b
05	Give and support opinions of a production	F4b
06	Make up a character to fit a given costume piece, e.g., cowboy hat, shawl, glasses.	F4b
LIBRARY MEDIA		
4604-01	The students will identify and locate different types of information sources in the library media center.	F4
01	Identify and locate indexes to information sources, e.g., catalog system, guide to magazine articles, guide to nonprint holdings.	F4
02	Identify and locate different types of atlases.	F4
03	Identify and locate different types of almanacs.	F4
04	Identify and locate different types of dictionaries.	F4
05	Identify and locate different types of encyclopedias.	F4
06	Identify and locate different types of data bases (electronic or print).	F4
07	Locate books and other materials using the call number.	F4
4604-02	The students will select and use many different sources to meet their reading and information needs.	F4
01	Select and use a variety of print and nonprint materials using indexing systems, e.g., card catalog (electronic or print), magazine guide, telephone book, etc.	F4
02	Select and use appropriate reference sources, e.g., books, dictionaries, encyclopedias, magazines (periodicals).	F4
03	Define and use the following terms: copyright, publisher, periodical, and biography.	F4

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		NCEO CODE
04	Define, compare, and use a table of contents, index, bibliography, and glossary.	F4
4604-03	The students will evaluate a wide variety of books and other materials.	F4
01	Choose a wide variety of books appropriate to reading ability and interest.	F4
02	Evaluate books and other materials for information needs.	F4
4604-04	The students will appreciate and respond to children's literature.	F4b
01	Read from a variety of literary forms, e.g., folklore, fairy tales, humor, mystery, biography, poetry.	F4b
02	Recognize first-person and third-person narratives.	F4a
03	Read books of merit, e.g., Utah Children's Book Award nominees.	F3b, F4b
04	Respond to literature using drama, art, writing experiences, or music.	F4b
05	Recite additional short poems with expression.	F4b
MATHEMATICS		
5040-01	The students will apply mathematical concepts and skills to solve problems they encounter in daily living.	F2a, F3a
01	Develop and apply problem-solving approaches to investigate and understand mathematical content.	F2a, F3a
02	Formulate problems from everyday and mathematical situations.	F3a
03	Develop and apply strategies to solve a wide variety of problems.	F2a, F3a
04	Verify and interpret results with respect to the original problem.	F3a
05	Acquire confidence in using mathematics meaningfully.	F3a, G2b
5040-02	The students will show understanding and application of mathematical concepts and justification of solutions to problems by communicating in oral, pictorial, and/or written form.	F3a
01	Relate physical materials, pictures, and diagrams to mathematical ideas.	F3a
02	Reflect on and clarify thinking about mathematical ideas and situations.	F3a
03	Relate everyday language to mathematical language and symbols.	F3a
04	Represent, discuss, read, write, and listen to mathematical ideas as a vital part of learning and using mathematics.	F3a
5040-03	The students will explain and justify logical reasoning strategies when working through (learning) a mathematical concept or solving a problem.	F2a, F3a
01	Draw conclusions about mathematics.	F3a
02	Apply models, known facts, properties, and relationships to explain their thinking.	F3a
03	Justify their answers and solution processes.	F2a, F3a
04	Develop patterns and establish relationships in order to analyze mathematical situations.	F3a
05	Recognize the interrelatedness of mathematical concepts (mathematics makes sense).	F3a
5040-04	The students will recognize the interrelatedness of mathematical concepts within the field of mathematics as well as throughout other disciplines, especially as they apply to daily living.	F3a
01	Link conceptual and procedural knowledge.	F3a
02	Relate various representations or concepts or procedures to one another.	F3a
03	Recognize relationships among different topics in mathematics.	F3a
04	Employ mathematics in other curricular areas.	F3a
05	Employ mathematics in their daily lives.	F3a
5040-05	The students will employ estimation strategies in order to demonstrate flexibility in working with numbers and measurement as they relate to the students' everyday lives.	F3a
01	Explore and develop estimation strategies.	F3a
02	Recognize when it is appropriate to estimate.	F3a
03	Determine the reasonableness of results.	F3a

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04	Apply estimation strategies in working with quantities, measurement, computation, and problem-solving.	F3a
5040-06	The students will demonstrate an understanding of numbers (number sense) as they apply to the students' everyday world.	F3a
01	Construct number meanings through real-world experiences and the use of physical materials.	F3a
02	Demonstrate an understanding of our numeration system by relating patterning, counting, grouping, and place-value concepts.	F3a
03	Develop number sense and interpret the multiple uses of numbers encountered in the real-world.	F3a
5040-07		
01	Develop meaning for the operations by modeling and discussing a rich variety of problem situations.	F3a
02	Recognize and employ a wide variety of problem structures that can represent a single operation.	F3a
03	Relate the mathematical language and symbolism of operations to problem situations and informal language.	F3a
04	Develop operation sense.	F3a
5040-08	The students will demonstrate ability in computational techniques through the use of paper and pencil, mental math, estimation, and technology to solve problems.	F3a, F5a
01	Model, explain, and develop reasonable proficiency with basic facts and algorithms.	F3a
02	Employ a variety of mental computation and estimation techniques.	F3a, F5a
03	Demonstrate the ability to use calculators in appropriate computational situations.	F3a
04	Select and use computation techniques appropriate to specific problems and determine whether the results are reasonable.	F3a
5040-09	The students will use geometry to explore the relationship of objects in the world in which we live.	F3a
01	Describe, model, draw, and classify shapes.	F3a
02	Investigate and predict the results of combining, subdividing, and changing shapes.	F3a
03	Develop spatial sense.	F3a
04	Relate geometric ideas to number and measurement ideas.	F3a
05	Recognize and appreciate geometry in the world.	F3a
5040-10	The students will understand that measurement is the comparing of objects with nonstandard and standard units such as U.S. Common and metric.	F3a
01	Understand the attributes of length, capacity, weight, area, volume, time, temperature, and angle.	F3a
02	Develop the process of measuring and concepts related to units of measurement.	F3a
03	Make and use estimates of measurement.	F3a
04	Make and use measurements in problem and everyday situations.	F3a
5040-11	The students will collect, organize, describe, display, and interpret data while making decisions and predictions based on that data.	F3a
01	Collect, organize, and describe data.	F3a
02	Construct, read, and interpret displays of data.	F3a
03	Formulate and solve problems that involving collecting and analyzing data.	F2a, F3a
04	Explore concepts of chance.	F3a
5040-12	The students will use knowledge of fractions and decimals to describe real-world phenomena and apply it to problems.	F3a
01	Develop concepts of fractions, mixed numbers, and decimals.	F3a
02	Develop number sense for fractions and decimals.	F3a

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		NCEO CODE
03	Relate fractions to decimals and find equivalent fractions through the use of models.	F3a
	Apply fractions and decimals to problem situations.	F3a
5040-13	The students will identify and work with patterns to understand how mathematics applies to the real world.	F3a
01	Recognize, describe, extend, and create a wide variety of patterns.	F3a
02	Represent and describe mathematical relationships.	F3a
03	Explore the use of variables and open sentences to express relationship.	F3a
HEALTH EDUCATION		
7040-01	The students will practice healthy life skills through social interaction and coping with pressures.	C1, G4
01	Identify and assess their feelings about their personal strengths and weaknesses.	G2b, G2c
02	Recognize that other people have feelings and a need for self-worth.	G3a
03	Explain why relaxation, varied interests, and physical activity are important in becoming a well-adjusted person.	C1, G
04	Differentiate between behaviors that contribute to a positive attitude and those that indicate a negative attitude.	G
05	Define stress and identify behaviors that may cause conflict or stress and ways of dealing with them.	C1
06	List and explain the steps to good decision making.	F
7040-02	The students will increase their understanding of growth and development as they begin to mature.	F4
01	Describe how the body grows in size and explain why people of the same age are often different in height and weight.	F4
02	Identify the body systems and briefly describe the general function of each: circulatory, respiratory, digestive, skeletal, muscular, nervous, and glandular.	F4
7040-03	The students will learn additional ways to be responsible for their own health and develop positive habits.	C1, C2
01	Identify key vitamins and minerals needed for good health.	C2c
02	Identify the function of each key vitamin and mineral.	F4
03	Review the basic functions of nutrients and how they affect specific areas of growth and well-being.	F4
04	Address current nutritional problems and at least one solution to undernutrition, overnutrition, and deficiencies in iron and calcium.	F2a, F4
05	Explain the relationship between exercise, food intake, and weight control.	F4
06	Explain why people of the same age are often different in height and weight.	F4
07	Plan a balanced food intake plan for one day, including breakfast, lunch, dinner, and snacks.	F4
08	Develop an understanding of tooth problems, i.e., periodontal diseases, malocclusions, and accidents.	C2c
09	Discuss how daily health practices can affect one's appearance, health, and acceptance by others.	F4
10	List and discuss messages they have received and perceived about alcohol and tobacco.	C2d
11	Discuss a variety of social, health, and economic problems associated with the use and abuse of alcohol, drugs, and tobacco.	F4
12	Discuss some of the potential hazards of the misuse of medicines.	C2d
13	Recognize that they often influence one another in health-related decisions and behavior.	no match
7040-04	The students will learn ways to improve the quality of the environment and control diseases.	C2, F4
01	Discuss services provided by doctors, dentists, nurses, pharmacists, optometrists,	F4

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	psychologists, sanitation inspectors, and other health providers.	
02	Discuss how diseases and illnesses can be spread by people, insects, animals, food, and water.	F4
03	Explain several ways the body defends itself against disease.	F4
04	Discuss the importance of medicines, vaccines, and boosters in preventing diseases.	F4
05	List some steps a community might take to keep their environment free from diseases.	F4
7040-05	The students will identify personal safety practices and explain basic first aid skills.	C2c, F4
01	Describe ways to prevent accidents while playing and participating in sports and games.	C2a
02	List safety rules for the home and school including ways to prevent falls, avoid accidental poisonings, etc.	C2a
03	Demonstrate first aid procedures for animal and insect bites, burns, cuts, scratches, and bleeding.	C2
04	Describe what to do when a person they might know attempts to touch them intimately, fondle, or abuse them.	F4
05	Describe procedures to follow in care of fire, floods, electrical shock, poisonings, earthquakes, and other emergencies.	C2, F4
7040-06	The students will develop an understanding of diseases and the immune system and how the disease AIDS compares with other diseases.	F4
01	Discuss ways the disease AIDS is similar to other diseases.	F4
02	Describe how HIV is difficult to contract and usually does not affect children.	F4
03	List ways that people cannot contract HIV.	F4
04	Explain how the scientific community is working hard to find a cure for HIV/AIDS.	F4
05	Describe strategies for HIV/AIDS prevention such as decision-making skills and refusal skills in responding to negative pressure from peers.	C2a, C2d, F4
SCIENCE		
3040-01	Students will analyze the diversity of plant and animal life in Utah.	F4a
01	Compare and contrast Utah biomes.	F4a
	Describe Utah's biomes (e.g., desert, forest, aquatic, alpine).	F4a
	Make a model of an observed Utah biome.	F4a
02	Relate plants and animals to a given biome.	F4a
	Identify plant and animal adaptations that are specific to each biome.	F4a
	Research examples of plant and animal interactions within a biome.	F4a
03	Describe past Utah biomes.	F4a
	Cite examples of plants or animals that formerly lived (but do not presently live) in Utah.	F4a
	Explain what caused some organisms to become extinct.	F4a
3040-02	Students will develop and use a classification system for Utah plants or animals.	F4a
01	Develop and use a classification system for Utah plants and animals.	F4a
	Relate plant structure to function (e.g., webbed feet help in swimming).	F4a
	Explain how plant and animal adaptations relate to acquisition of food, water, and shelter.	F4a
	Suggest reasons for classifying living things.	F4a
	Develop and use a pattern for grouping plants or animals.	F4a
02	Use an existing classification scheme.	F4a
	Use a common classification scheme to classify Utah animals.	F4a
	Use a common classification scheme to classify Utah plants.	F4a
3040-03	Students will explain the water cycle.	F4a
01	Explain the processes of melting, precipitation, evaporation, condensation, percolation,	F4a

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	and erosion.	
	Collect and record data on the various processes listed.	F4a
	Set up or draw apparatus which will cause water to change form.	F4a
	Explain in their own words the processes listed and the relationships between them.	F4a
02	Construct a chart or drawing of the water cycle.	F4a
	Make a model of the water cycle (e.g., drawing, computer simulation, physical model).	F4a
	Explain in their own words what "cycle" in water cycle means.	F4a
	Explain how a change in one part of the cycle would affect other parts.	F4a
	Create a story taking a drop of water through the water cycle.	F4a
3040-04	Students will examine and categorize a variety of Utah rocks and minerals.	F4a
01	Identify properties of rocks and minerals.	F4a
	Distinguish between crystalline and non-crystalline substances.	F4a
	Use a hand lens to observe shapes and colors of minerals in rocks.	F4a
	Identify variables that are likely to affect crystal structure and growth.	F4a
	Design and conduct experiments which manipulate variables likely to affect the growth of crystals.	F4a
02	Categorize rocks and minerals according to observed properties.	F4a
	Describe the homogeneous nature of minerals.	F4a
	Describe the heterogeneous nature of rocks.	F4a
	Test rocks for hardness, color, luster, streak, and density.	F4a
03	Discuss and draw the rock cycle.	F4a
	Use reference sources to obtain information on the formation of sedimentary, igneous, and metamorphic rocks.	F4a
	Draw and label the different types of rocks in the rock cycle.	F4a
	Explain how soils are formed as a part of the rock cycle.	F4a
	Explain the rock cycle concept.	F4a
04	Discuss the value of rocks and minerals to Utah's economy.	F4a
	Identify the modern and historical importance of minerals and mining.	F4a
	Describe careers and hobbies related to minerals and rocks.	F4a
	Relate how technology influences mining techniques.	F4a
	Evaluate the interaction of mining and the environment.	F4a
05	Collect and analyze data about Utah fossils and infer how fossils are formed.	F4a
	Record observable features of fossils.	F4a
	Make inferences about origin of fossils.	F4a
	Predict where fossils might be found based on inferences.	F4a
	Construct a model of a fossil.	F4a
06	Explain how Utah fossils can be used to draw inferences about Earth's history.	F4a
	Formulate hypotheses about the geological history of Earth from the study of fossils and compare them to accepted scientific theories.	F4a
	Describe the geological history of Earth as provided by fossil evidence.	F4a
	Research what scientists have learned about the history of the Earth from fossils.	F4a
3040-05	Students will explore and classify a variety of Utah soils.	F4a
01	Gather data on the components of soil.	F4a
	Estimate the amount of mineral and organic materials there are in a given sample.	F4a
	Demonstrate that soil also contains air and water.	F4a
02	Determine soil types such as sand, clay, and silt.	F4a
	Analyze a sample of soil for particle size and type, color, odor, and texture.	F4a
	Compare compaction and moisture retention of various soils.	F4a
	Determine soil types in relation to depth (e.g., topsoil, subsoil, and parent material).	F4a
	Categorize several soil samples.	F4a
03	Research and communicate the economic value of soil.	F4a
	Research the modern and historical importance of agriculture in a local site and in Utah in general.	F4a

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	Research and report on soil erosion at a local site.	F4a
	Explain how people can have different opinions on soil management.	F4a
3040-06	Students will observe, record, analyze, and predict weather.	F4a
01	Identify the elements of weather.	F4a
	Explain the role of water as it relates to weather.	F4a
	Relate air and air movement to weather.	F4a
	Describe some effects of the sun on weather.	F4a
	Describe some effects of geographical factors on weather.	F4a
02	Measure and record elements of weather.	F4a
	Design and construct weather measurement devices.	F4a
	Use instruments to measure temperature, humidity, air pressure, and wind speed and direction.	F4a
	Record elements of weather over a period of time.	F4a
03	Predict weather based on qualitative and quantitative observations.	F4a
	Collect and record data from weather observations.	F4a
	Demonstrate the relationship between weather observations and seasonal weather patterns.	F4a
	Evaluate the accuracy of weather forecasts.	F4a
SOCIAL STUDIES		
6040-01	The students will utilize a variety of speaking, listening, writing, reading, and citizenship character skills in completing social studies activities.	D, E, F1a, F3b, F3c, F4a
01	Use researching, interviewing, and charting techniques to demonstrate mastery of concepts learned.	F1, F4a
02	Formulate a plan to solve a problem and determine appropriate actions.	F2a, F4a
03	Use indexes, glossaries, and newspapers to find additional information about a social studies topic.	F4a
04	Verbalize citizens, rights, and responsibilities in the state of Utah.	F4a
6040-02	The students will explain how the historical and cultural development of Utah is different from that of other states.	F4a
01	Discuss the cultural contributions made to Utah's history by the following groups: Native Americans, explorers, traders and trappers, Mormons and other religious groups, ethnic groups, women, and others (304-501).	F4a
02	List and compare different cultural traditions and values of people in Utah and around the world (304-203).	F4a
6040-03	The students will explain how the geographical features of places within Utah and other areas of the world vary and contribute to their distinctiveness.	F4a
01	Describe the land areas of Utah (Basin and Range Province, Colorado Plateau, Rocky Mountains), the physical features of the desert, mountains, lakes, and rivers, and compare them to other regions of the world (304-402).	F4a
02	Describe the industries in Utah (transportation, communication, mining, manufacturing, construction, agriculture, technology, and government industry) and compare them to other industries throughout the world (304-402).	F4a
03	Locate on a map of Utah its major scenic attractions (304-403).	F4a
04	Use parallels and meridians, latitude, and longitude to determine direction and location (304-801).	F4a
05	Use various maps, such as the Utah highway map and atlas maps to locate scenic attractions, counties, and major physical features (304-805).	F4a
06	Use a highway map legend to determine mileage between two points (304-802).	F4a
07	Use two different types of maps to identify topography, climate, and land use (304-809).	F4a
08	Identify different types of boundary lines such as city, county, state, national, and	F4a

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	international (304-810).	
6040-04	The students will describe how the free enterprise economic system affects the decision-making process.	F4a
01	Define free enterprise system, production, consumption, work incentive, and work ethic.	F4a
02	Define the free enterprise system as one in which individuals in their varying capacities as consumers/producers register their freely made decisions, i.e., scarcity, opportunity cost, supply, and demand (304-606).	F4a
03	Identify the role that profit and loss play in making production decisions (305-601).	F4a
04	Explain how the interaction of supply and demand determines the price of a product (305-605).	F4a
05	Explain the relationship between wages, productivity, and price.	F4a
6040-05	The students will explain how the government operates in Utah and compare it to other forms of government around the world.	F4a
01	Discuss how laws are made in the state of Utah (304-702).	F4a
02	Examine local and state forms of government in Utah and compare them to others around the world.	F4a
03	List the duties of various elected state and local officials.	F4a
04	Study the constitution of Utah.	F4a

Virginia

Document Utilized

Outcome Accountability Program: 1994 Interpretive Guide to Reports (1994)

Background

Current revision to the state content standards began in April 1994. The state has developed standards of learning in English/language arts, mathematics, science, and social studies. Standards are organized by grade levels until 8th grade. In high school, the standards are not grade-specific; they are identified by courses. It has not been determined whether the standards will be mandatory for districts. Standards will, however, be tied to graduation requirements and state assessments.

Virginia

	NCEO CODE
1. COMMUNITY AND STUDENT INFORMATION: Students Speaking English as a Second Language	no match
DEFINITION: Percent of students in the division identified as being Limited English Proficient during the 1992-93 school year.	no match
2. COMMUNITY AND STUDENT INFORMATION: Educational Level of the Community.	no match
DEFINITION: Percent of adults in the locality who are high school graduates as reported by the 1990 Census.	no match
3. COMMUNITY AND STUDENT INFORMATION: Family Poverty Level in the Community.	no match
DEFINITION: Percent of families in the locality below the federal poverty level as reported by the 1990 U.S. Census.	no match
4. COMMUNITY AND STUDENT INFORMATION: Community Income	no match
DEFINITION: 1991 Median Adjusted Gross Income in the locality.	no match
5. COMMUNITY AND STUDENT INFORMATION: Public School Membership.	no match
DEFINITION: Average number of student enrolled in the school division during the 1992-93 school year (Average Daily Membership)	no match
6. COMMUNITY AND STUDENT INFORMATION: Student's Socioeconomic Status	no match
DEFINITION: Percent of students in the division with approved applications for free or reduced price lunch during the 1992-93 school year.	no match
7. COMMUNITY AND STUDENT INFORMATION: Local Ability-to-Pay for Education.	no match
DEFINITION: The composite Index of Local Ability-to-Pay is a weighted, division-level measure that includes local adjusted gross income, local sales tax, local value of real property, and reflects both the student population and the local population.	no match
OBJECTIVE 1: PREPARING STUDENTS FOR COLLEGE	
1. INDICATOR NAME: Advanced Studies Diploma	no match
DEFINITION: Percent of minority high school graduates who earned the Advanced Studies Diploma	no match
2. INDICATOR NAME: Minority Advanced Studies Diploma	no match
DEFINITION: Percent of minority high school graduates who earned the Advanced Studies diploma	no match

Virginia

	NCEO CODE
3. INDICATOR NAME: Taking Foreign Language	no match
DEFINITION: Percent of 8th grade students who took a foreign language prior to 9th grade	F4
4. INDICATOR NAME: Taking Algebra 1	F3a
DEFINITION: Percent of 8th grade students who took Algebra 1 or Algebra 1, Part 1 prior to the 9th grade	F3a
5. INDICATOR NAME: Taking Advanced Placement or College Level Courses	no match
DEFINITION: Percent of 11th and 12th grade students who took at least one Advanced Placement or college level course while in grades 9-12	no match
6. INDICATOR NAME: Advanced Placement Test Scores	no match
DEFINITION: Percent of 1th and 12th grade students taking Advanced Placement courses who scored 3 or more on at least one Advanced Placement Test	no match
7. INDICATOR NAME: 11th Grade Standardized Test Scores	A2c
DEFINITION: Percent of 11th grade students who took the Virginia State Assessment Program standardized under standard conditions whose composite scores were above the national 75th percentiles	A2c
8. INDICATOR NAME: 8th Grade Standardized Test Scores	A2c
DEFINITION: Percent of 8th grade students who took the Virginia State Assessment Program standardized tests under standard conditions whose composite scores were above the national 75th percentile	A2c
OBJECTIVE 3: INCREASING THE GRADUATION RATE	
1. INDICATOR NAME: Literacy Passport 6th Grade Pass Rate	no match
DEFINITION: Percent of 6th grade students who passed all three Literacy Passport tests	no match
2. INDICATOR NAME: Dropout Rate	A1
DEFINITION: Percent of children in grades 7-12 who dropped out of school	A1
3. INDICATOR NAME: Minority Dropout Rate	A1
DEFINITION: Percent of minority students in grades 7-12 who dropped out of school	A1
4. INDICATOR NAME: Attendance.	A1a
DEFINITION: Percent of students in grades K-12 who were absent 10 days or less from school.	A1a
5. INDICATOR NAME: 4th Grade Standardized Test Scores.	A2b
DEFINITION: Percent of 4th grade students who took the Virginia State Assessment Program standardized tests under standard conditions whose composite scores were above the national 25th percentile.	A2b
7. INDICATOR NAME: Over age 4th Grade Students.	no match
DEFINITION: Percent of 4th grade students who were 11 or more years of age.	no match
OBJECTIVE 4: INCREASING SPECIAL EDUCATION STUDENTS' LIVING SKILLS AND OPPORTUNITIES.	
1. INDICATOR NAME: Attendance.	A1a
DEFINITION: Percent of special education students who were absent 10 days or less from school.	A1a

Virginia

	NCEO CODE
OBJECTIVE 5: EDUCATING ELEMENTARY SCHOOL STUDENTS	
1. INDICATOR NAME: 4th Grade Standardized Test Scores	A2c
DEFINITION: Percent of 4th grade students who took the Virginia State Assessment Program Standardized tests under standard conditions whose composite scores were above the national 50th percentile.	A2c
2. INDICATOR NAME: Attendance	A1a
DEFINITION: Percent of students in grades K-5 who were absent 10 days or less from school.	A1a
4. INDICATOR NAME: Over Age 4th Grade Students.	no match
DEFINITION: Percent of 4th grade students who were 11 or more years of age.	no match
5. INDICATOR NAME: Over Age Minority 4th Grade Students.	no match
DEFINITION: Percent of minority 4th grade students who were 11 or more years of age.	no match
6. INDICATOR NAME: Physical Fitness Test.	A2c
DEFINITION: Percent of 4th and 5th grade students who passed all four spring physical fitness tests (percent of 4th and 5th grade students enrolled in Physical Education who took all four physical fitness tests).	A2c

Washington

Documents Utilized

Subgroup on Learning, Outcomes, and Assessment- - Recommendations to the Governor's Council on Education Reform and Funding (June 1992)
Ready to Learn - Final Recommendations (June 1992)

Background

The Subgroup on Learning, Outcomes, and Assessment, as part of the Governor's Council on Education Reform and Funding, developed a set of recommendations for the Legislature in 1992 that included the specification of a set of student learning goals and demonstrated outcomes. The state is developing content standards in two phases. Goal 1 includes the basics of communication, mathematics, reading, and writing. Goal 2 includes the arts, health and fitness, science, and social studies. Standards describe student learning at three levels that roughly coincide with elementary, middle, and high school. Developmental indicators are used to illustrate mastery. Prototype tasks and sample scoring guides will accompany the standards. The standards will be mandatory for districts by the year 2000 and will be tied to statewide assessments.

Washington

STUDENT LEARNING GOALS	NCEO CODE
The ultimate goal for Washington's K-12 education system is to enable people to be responsible citizens, to contribute to their own economic well-being and to that of their families and communities and to enjoy productive and satisfying lives. To these ends, schools, together with parents and communities, will help students develop the knowledge, skills and attitudes essential to:	
GOAL 1: Communicate effectively and responsibly in a variety of ways and settings.	F1
Demonstrated Outcomes Each Student:	
A. gathers information and ideas through listening, observing, participating and reading.	A2a, F3b
B. organizes, analyzes, and applies information and ideas.	F2a
C. expresses information, ideas and emotions by using written and oral language and the arts, and by working with materials.	F1a, F3a
D. uses appropriate technology to gather, process and express information and ideas.	F1, F5a
GOAL 2: Know and apply the core concepts and principles of mathematics; social, physical and life sciences; arts: humanities; and healthful living.	C1, F3a, F4a, F4b
Demonstrated Outcomes Each Student understands and uses:	
A. the mathematical principles, structures and concepts.	F3a
B. the scientific principles, structures and concepts.	F4a
C. the principles, structures and concepts of social, economic and political systems.	F4a
D. the principles of democratic living, including an awareness of cultural diversity.	E, G3b
E. the principles, structures and concepts of the arts and humanities.	F4b
F. the elements of healthful living.	C1, C2

Washington

	NCEO CODE
GOAL 3: Think critically and creatively and integrate experience and knowledge to form reasoned judgments and solve problems.	F2a
Demonstrated Outcomes Each Student Can:	
A. engage and apply problem solving by:	F2a
1. identifying problems	F2a
2. formulating alternative solutions and consequences.	F2a
3. analyzing and evaluating information necessary to solve problems.	F2a
4. applying analysis in making informed choices based on information and consequences.	F2a
5. selecting and applying appropriate technology to solve problems.	F2a
B. integrate information, ideas, materials and equipment form multiple disciplines to solve problems.	F2a
C. make connections between what is already known and new fields of knowledge.	F2a
D. make connections that have personal relevance and meaning.	F2a
GOAL 4: Function as caring and responsible individuals and contributing members of families, work groups, and communities.	D1a, E1a, G3a, G4b
Demonstrated Outcomes Each Student Demonstrates:	
A. personal attributes of:	
honest and ethical behavior	E1
self-directed life long learning	no match
adaptability and flexibility in the face of the known and unknown	no match
resourcefulness and creativity	no match
self-esteem and self-discipline	G1c, G2a
interpersonal and leadership skills	G4
B. citizenship through:	
acceptance of rights and responsibilities of self and others	D1a, E1a, G3a
civic participation and community involvement	D1a, D2b, E1a, E1c
a multicultural and world view	G3
C. employability through:	
ability to seek and obtain employment	no match
motivation and persistence	D1b
positive work habits	no match
productive team member skills	A2a, G4b

West Virginia

Document Utilized

West Virginia Programs of Study: Instructional Goals and Objectives--Early Childhood Education K-4 (July 1992)
West Virginia Programs of Study: Instructional Goals and Objectives--Middle Childhood Education 5-8 (July 1992)

Background

West Virginia educational policy articulates instructional goals (developed at K-4, 5-8, and 9-12) that are mandatory. Instructional objectives, developed for each grade from K-12 are recommended. These programs of study describe student learning in the following areas: art, driver's education, English/language arts, foreign languages, health, mathematics, music, physical education, safety, science, and social studies.

West Virginia

INSTRUCTIONAL GOALS AND OBJECTIVES	NCEO CODE
EARLY CHILDHOOD EDUCATION K-4	
ART PROGRAM OF STUDY: INSTRUCTIONAL OBJECTIVES, LEVEL 4	
At this level, children learn to identify and use color tints and shades, one-point perspective, balance, repetition and pattern. Children should be guided in the processes of drawing, painting, printmaking, sculpture and crafts to develop creative skills, motor skills, art appreciation and making decisions about art. Each child's creativity should be encouraged; creative work is preferred over prepared models. The Learner Will:	
1. Discuss color value(s)	F4b
2. Create art using four (or more) tints of one color.	F4b
3. Create art using four (or more) shades of one color.	F4b
4. Create three-dimensional art.	F4b
5. Compare formal (symmetrical) and informal (asymmetrical) balance in art.	F4b
6. Create a portrait (facial, partial or total figure)	F4b
7. Compare abstract and non-objective art.	F4b
8. Identify, discuss and cite examples of animation as it relates to media arts.	F4b
9. Discuss pattern and repetition in art.	F4b
10. Create simple media technique, such as an animation flipbook.	F4b
11. Create abstract or non-objective art using balance and pattern, e.g., mobiles, paintings, prints.	F4b
12. Discuss form and space in architecture, e.g., Frank Lloyd Wright, Mondrian, Greek, Egyptian.	F4b
13. Create art using form and space in architecture found in the local area.	F4b
14. Discuss art as a means of recording history.	F4b
15. Create art depicting an historical or current event.	F4b
16. Identify six artists and a work by each.	F4b
17. Discuss feelings artists have communicated in their works.	F4b
18. Select and title his/her own favorite work(s) for display and discuss the reasons for the choice(s).	F4b
ENGLISH/LANGUAGE ARTS PROGRAM OF STUDY	
Criteria of Excellence: Instructional Goals and Objectives for English Language Arts (Reading, Writing, Spelling, Handwriting, Speaking, Listening, Viewing)	

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5.0	**EARLY CHILDHOOD EDUCATION PROGRAM OF STUDY**	
5.1	Instruction in English language arts at level K-4 should develop effective communication. To achieve this, the program of study should encourage the interactive nature of the English language arts. Students move from prior knowledge and experience through basic skill acquisition toward independence and appreciation.	F1a, F3c
5.2	Effective communication requires the integration of strategies in reading, writing, spelling, handwriting, speaking, listening, and viewing. Knowledge of, as well as experience with, various literary genres should be encouraged across the curriculum.	F1, F1a, F3b, F3c, F4b
8.0	**INSTRUCTIONAL GOALS**	F3b
8.1	Reading: Students will acquire and use the reading strategies necessary to achieve personal ambitions and to succeed in society.	F3c
8.2	Writing: Students will master writing strategies that provide them with the decision-making skills to address specific audiences and purposes.	F4a
8.3	Spelling: Students will spell and pronounce words correctly.	F3c
8.4	Handwriting: Students will write legibly.	F1a
8.5	Speaking: Students will participate in a variety of speaking opportunities that are integrated into learning activities and that allow students to interact interpersonally.	F1
8.6	Listening: Students will develop listening strategies for their personal, academic, and occupational lives.	F2a, F4a
8.7	Viewing: Students will be critical viewers of media.	
9.0	**READING OBJECTIVES (READING, LITERATURE)**	
9.1	Students will demonstrate comprehension through the critical thinking skills of summarizing, interpreting, evaluating, critiquing, and analyzing what is read.	F2a, F3b
9.2	Students will read and respond to a wide variety of literary genres.	F3b, F4b
9.3	Students will read for literary experience, pleasure, information, task performance, and problem solving.	F2a, F3b, F4b
9.4	Students will develop lifelong reading habits.	F3b
9.5	Students will use reading strategies across the curriculum.	F3b
10.0	**WRITING OBJECTIVES (COMPOSITION, USAGE, MECHANICS, GRAMMAR, JOURNALISM)**	
10.1	Students will develop a writing process that allows them to write confidently, fluently, and successfully.	F3c, G2b
10.2	Students will use prewriting and drafting strategies (i.e., invented spelling) to generate topics and plan approaches to writing tasks.	F3c
10.3	Students will use writing strategies to address specific writing purposes, such as research, creative, journalistic, and essay.	F3c
10.4	Students will use writing strategies to write for audiences, including peers, teachers, and employers.	F3c
10.5	Students will use revision strategies.	F3b
10.6	Students will edit their writing as well as the writing of others to delete or correct errors in organization, content, usage, mechanics, and spelling.	F3b
10.7	Students will become familiar with different aspects of publishing.	F4b
10.8	Students will critique, model, and experiment with different writing styles.	F2a, F3b
10.9	Students will write for pleasure and enjoyment (i.e., journals, friendly letters)	F3b
10.10	Students will select and identify examples of specific parts of speech, phrases, and clauses from their writing.	F3b
10.11	Students will write and identify different types of sentences, paragraphs, and essays.	F3b
10.12	Students will write and use writing as an expression of learning across the curriculum.	F3b
11.0	**SPELLING OBJECTIVES**	
11.1	Students will acquire a written and oral vocabulary from a wide variety of instructional sources and activities.	F1, F4a

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11.2	Students will demonstrate accurate spelling and pronunciation in their written and oral communication across the curriculum.	F1a, F3c
12.0	**HANDWRITING OBJECTIVES**	
12.1	Students will write legibly in manuscript and cursive forms.	F3c
12.2	Students will use proper keyboarding techniques in schools and county school districts where the technology and educational resources permit.	F5a
12.3	Students will follow a teacher, school, or county developed style sheet, or a manuscript format (i.e., MLA Style Sheet) to prepare written communications.	F3c
13.0	**SPEAKING OBJECTIVES (FORMAL, INFORMAL, COMPETITIVE)**	
13.1	Students will participate in a variety of speaking activities, e.g., oral interpretation, choral reading, argumentation, debate, and discussion.	F1a, F4a
13.2	Students will use conferencing skills to achieve academic goals.	G4b
13.3	Students will identify and correct usage errors in oral communications.	F1
13.4	Students will exhibit appropriate speaking etiquette, e.g., speaking in turn, using proper telephone skills, demonstrating interpersonal communication.	F1, F1a
13.5	Students will use public speaking strategies to prepare formal and informal speaking presentations across the curriculum.	F1a
14.0	**LISTENING OBJECTIVES.**	
14.1	Students will listen to oral communications using proper etiquette.	F1
14.2	Students will listen to oral communications and retell in either oral or written form.	F4
14.3	Students will listen to oral instructions and successfully complete the task.	F1
14.4	Students will listen to oral communications and critique, evaluate, and summarize their contents across the curriculum.	F1, F2a
15.0	**VIEWING OBJECTIVES (DRAMA, THEATER, FILM, TELEVISION, COMPUTER TECHNOLOGY)**	
15.1	Students will view media for specific purposes, such as performance, pleasure, information, communication.	F4
15.2	Students will observe, critique, evaluate, and analyze what they view from different perspectives.	F2a, F4
15.3	Students will differentiate types of information present in media format (propaganda, bias)	F4
15.4	Students will exhibit appropriate audience etiquette in a variety of viewing experiences.	D1a
15.5	Students will use film, television, video, and computers to reinforce, and enhance classroom instruction across the curriculum.	F5a
	HEALTH PROGRAM OF STUDY	
	SECTION 3 EARLY CHILDHOOD EDUCATION	
	The goal of the Health Education Program of Study in Early Childhood Education is to prepare students to assume responsibility for their own health and wellness. They need to being to understand the relationships between certain health and hygiene practices and their own health status, and demonstrate the ability to make sound health choices. The local school district shall, therefore, provide multiple opportunities for students to:	
	Know and understand the basic hygiene and health practices related to cleanliness, rest and exercise, dental health, and protection from the environment, and how these factors influence disease processes.	C2b, C2c
	Know and understand the relationships between food choices and exercise and health status including weight, fitness and health indicators such as blood cholesterol.	C1a, C2b
	Know the major parts and functions of the different body systems, including the following: digestive, circulatory, respiratory, musculoskeletal, and nervous.	F4
	Understand and practice safety skills and demonstrate basic care for minor injuries.	C2a

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Understand the differences between drugs used for medicinal purposes and those that are unlawful and recognize the importance of correct mediation usage.	C2d
Recognize feelings, coping strategies, and personal relationships and how they affect emotions and self-concept.	G1, G2
Recognize types of community health agencies and providers and demonstrate knowledge of consumer health issues.	C2
Understand good touching versus bad touching, and the need for reporting child abuse.	C2a
MATHEMATICS PROGRAM OF STUDY, LEVEL 4	
This area of study emphasizes critical thinking skills to create independent problem solves who possess a personalized set of skills and strategies to solve problems in everyday life. Concepts which are stressed include: multiplication and division of two and three digit numbers, construction and description of objects from different perspectives, estimation, reading temperatures, description of possible outcomes in a given situation, use of calculators, and describing mathematical relationships and patterns in other content areas and the real world.	
Additional concepts include adding and subtracting like fractions, multiplication of fractions, and adding and subtracting decimals.	
The Learner Will:	
PROBLEM SOLVING	
1. develop own personalized set of problem solving strategies which may include mode, act-out, guess and check, organized list, table or chart, and patterns; solve a simpler problem; work backwards; make an open sentence; and, generalize a solution;	F2a, F3a
2. Justify his/her solution to a given problem.	F2a, F3a
COMMUNICATION	
3. Use mathematics vocabulary accurately and on a daily basis;	F3a
4. Teach his/her strategy in obtaining a solution to another student;	F3a
5. Relate everyday language situations to mathematical language and symbols.	F3a
6. Use manipulatives and graphs to model mathematical situations.	F3a
REASONING	
7. Identify the reasonable answer to a problem;	F3a
8. Using previous mathematical experience, construct valid arguments as to why mathematics make sense;	F3a
9. make and test conjectures (arguments);	F3a
10. Justify the process used to find a solution.	F3a
CONNECTIONS	
11. Explain the connections of mathematics to other subject areas;	F3a
12. Demonstrate the interrelationship of mathematical topics on a continuing basis, e.g. measurement or problem solving to reinforce basic facts.	F3a
ESTIMATION	
13. Estimate whole number sums and differences using front to end estimation, e.g. 4349+2256= Think: 4000+2000=6000, 349+256 is about 600; Answer: about 6600.	F3a
14. Estimate using compatible numbers to check answer on a calculator, e.g., 42x58 which is about 40x50, Answer: about 2000.	F3a
NUMBER SENSE AND NUMERATION	
15. Identify and use 1000 more than and 1000 less than a given number;	F3a
16. Identify place value of digits in a given number;	F3a
17. Demonstrate an understanding of the structure of the base ten system by estimating, comparing, and expressing numbers in a variety of forms.	F3a

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CONCEPTS OF WHOLE NUMBER OPERATIONS	
18. Use concrete materials to illustrate a multiplication sentence;	F3a
19. Illustrate division as taking out equal-sized sets, e.g. measurement and distributing equally (partition);	F3a
20. Use concrete materials to demonstrate the properties of multiplication.	F3a
COMPUTATION	
21. Use a calculator in situations with addition and subtraction of large numbers;	F3a, F5a
22. Acquire strategies to aid in recall of basic multiplication and division facts;	F3a
23. Multiply 2 digit by 2 digit numbers;	F3a
24. Divide 2 or 3 digit numbers by single digit divisor with or without remainder.	F3a
GEOMETRY AND SPATIAL SENSE	
25. Construct 3 dimensional objects from paper patterns and other materials;	F3a
26. Explore and identify the geometric concepts of symmetry, congruence, and similarities;	F3a
27. Describe 3 dimensional objects from different perspectives.	F3a
MEASUREMENT	
28. Choose an appropriate unit and measure lengths in customary and metric units;	F3a
29. Estimate, measure, and calculate perimeters and areas of figures and regions;	F3a
30. Choose an appropriate unit; estimate and measure capacity up to liters and gallons;	F3a
31. Choose an appropriate unit; estimate and measure mass/weight up to kilogram and pounds;	F3a
32. Read temperature measurements in Celsius and Fahrenheit.	F3a
PROBABILITY AND STATISTICS	
33. Describe possible outcomes in a given situation, e.g. coin toss, colors on spinner, number cube, and tree diagram;	F3a
34. Collect, organize, display, and interpret data including generation displays with computers;	F3a
35. Find mean, median and mode.	F3a
FRACTIONS AND DECIMALS	
36. Add and subtract tenths and hundredths when written in decimal notation;	F3a
37. Add and subtract mixed numbers with like denominators;	F3a
38. Compare and order three or more decimals to tenths and hundredths;	F3a
39. Compare and order fractions with like denominators.	F3a
PATTERNS AND RELATIONSHIPS	
40. Describe mathematical relationships in the real world and patterns in other content areas (music-rhythm, poetry-rhyme, etc.);	F3a
41. Identify patterns within the number system, including numerical operations using the calculator, e.g. odd+odd=even, even+odd=odd, etc.	F3a, F5a

MUSIC PROGRAM OF STUDY, EARLY CHILDHOOD EDUCATION, K-4

AREA OF STUDY: CLASSROOM/GENERAL MUSIC

This area of study Classroom/General Music is an Early Childhood and Middle Childhood Education sequence of study which constitutes a body of knowledge to be offered in the public schools of West Virginia. This area of study provides a basic introduction to music for all students through activities in singing, playing classroom rhythm instruments, listening, moving to music, and reading notation.

LEVEL 4

This level within the area of study provides for the further refinement of musical skills and concepts, e.g., triads, rondo (A-B-A-C-A) form.

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	The Learner Will:	
1.	Manipulate notation for melodic patterns based upon the C major scale.	F4b
2.	Read notation for melodies based upon the C major scale.	F4b
3.	Perform songs based upon minor scales.	F4b
4.	Demonstrate the function of sharps and flats.	F4b
5.	Manipulate notation for sharps and flats.	F4b
6.	Create and notate an original composition.	F4b
7.	Play the I, IV and V triads of C Major.	F4b
8.	Participate in the performance of three-part round(s).	F4b
9.	Participate in the singing of partner songs.	F4b
10.	Identify a coda in music presented aurally.	F4b
11.	Demonstrate understanding of multiple endings.	F4b
12.	Identify rondo form (e.g., A-B-A-C-A).	F4b
13.	Perform, from standard notation, rhythm patterns, including sixteenth notes.	F4b
14.	Identify sixteenth notes by name.	F4b
15.	Perform, from standard notation, rhythm patterns, including triplets.	F4b
16.	Explain the tempo markings allegro and adagio.	F4b
17.	Perform a crescendo in a musical composition.	F4b
18.	Perform a decrescendo in a musical composition.	F4b
19.	Distinguish between soprano and alto voices.	F4b
20.	Describe the method(s) of tone production for each family of instruments (strings, woodwinds, brass, percussion).	F4b
21.	Identify instruments of the string family: violin, viola, cello, stringed bass and harp.	F4b
22.	Identify instruments of the woodwind family: flute, clarinet, saxophone, oboe and bassoon.	F4b
23.	Identify instruments of the brass family: trumpet, French horn, trombone and tuba.	F4b
24.	Identify instruments of the percussion family: bass drum, snare drum, timpani, xylophone, cymbals and tambourine.	F4b

PHYSICAL EDUCATION PROGRAM OF STUDY, LEVEL 4

This area of study focuses on physical and health fitness components, and the extension and application of concepts/experiences and skills from previous levels. Participation in lead-up activities and games which develop physical skills and identification of percent of body fat are introduced.

	Learning Outcomes- The Learner Will:	
1.	Demonstrate physical and health related fitness components, including cardiorespiratory endurance, strength and flexibility.	C3a
2.	Demonstrate skills requiring agility.	C3a
3.	Identify percentage level of body composition (i.e., percent of body fat).	F4
4.	Demonstrate and extend balance and posture concepts developed in previous levels.	C3, F4
5.	Apply and extend locomotor and non-locomotor skills developed in previous levels.	C3, F4
6.	Execute previously acquired skills in game situations.	F4
7.	Demonstrate knowledge of the elements of form and style for motor skills and patterns.	C3, F4
8.	Participate in lead-up games which develop sport skills.	A2a, C1b
9.	Participate in games which develop individual and dual sports skills.	C1b
10.	Demonstrate body control necessary to perform tumbling skills safety.	C3, F4
11.	Demonstrate the body control necessary to perform balance beam skills safety.	C3, F4
12.	Demonstrate cultural (folk and square) dance skills.	F4b
13.	Comprehend and demonstrate proper care and use of equipment.	E1c
14.	Demonstrate sportsmanship in competitive and cooperative activities.	G4b
15.	Participate in movement activities for personal skill development.	C1b
16.	Show positive behavior and apply decision making skills under stressful conditions.	F2a, G1
17.	Demonstrate positive group dynamic behaviors and individual dynamic behaviors.	G4b
18.	Adhere to the rules of the game and comply with safety factors.	C2a, E1

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	SAFETY PROGRAM OF STUDY, LEVEL 4	
	This area of study includes the recognition of hazardous or unsafe conditions and situations. Basic first aid for minor injuries, traffic safety prescriptive and nonprescriptive use of drugs, and certain aspects of fire safety are also addressed.	
	Learning Outcomes- The Learner Will:	
1.	Demonstrate a knowledge of the influence and impact of peer relationship on one's personal safety.	C2
2.	Recognize how microorganisms spread diseases and infections.	C2c, F4
3.	Analyze the need for safety consciousness/personal safety.	C2a
4.	Recognize the hazards of potential hazards of toys and games, and recognize safe and unsafe play equipment, and safe/ unsafe use of toys, games, and equipment.	C2a
5.	Demonstrate a need for safety in the school.	C2a
6.	Know and apply state/municipal traffic laws pertaining to bicycle and/or pedestrian safety.	E1
7.	Demonstrate safe use of crosswalks, sidewalks, railroad crossings and other pedestrian areas.	C2a
8.	Recognize safe practices around fire and heating devices (fireplaces, stoves and heaters), and realize the importance of and procedures for leaving a burning building, reporting fires, responding to a fire alarm, and identifying / utilizing primary and alternate escape routes.	C2a
9.	Evaluate the effects of pollution on the safety of the community and on oneself.	C2
10.	Analyze the need for safety in the school environment.	C2a
11.	Recognize the safety hazards created by and resulting from the use of legal and/or illicit drugs and analyze their impact on individuals in our society.	C2d
13.	Justify the need for recreational safety.	C2a
14.	Demonstrate a knowledge of basic first aid in caring for minor injuries.	C2
15.	Recognize those emergencies that require immediate action or attention.	C2
16.	Recognize safety hazards and display a concern for personal safety as well as the safety of others in daily activities.	C2a, G3a
	SCIENCE PROGRAM OF STUDY	
	COORDINATED AND THEMATIC SCIENCE, K-4	
1.0	**NATURE OF SCIENCE**	
	To develop an understanding of the nature of science.	F4a
1.1	Perceive science as the humans' search for and understanding of the world.	F4a
	Ask questions about themselves and their world.	F1, F4a
	Recognize the roles of people involved in scientific careers.	F4a
1.2	Explore objects and events.	F4a
	Describe objects by using the five senses.	F1, F4a
	Recognize that change occurs in nature.	F4a
1.3	Probe deeply into natural phenomena by communicating and answering questions.	F1, F4a
	Use a variety of communication techniques (graphs, pictures, etc.).	F1, F3c, F4a
	Share discoveries with others.	F1, F4a
1.4	Realize that science is never finished.	F4a
	Observe changes in the environment.	F4a
	Recognize that a solution to one scientific problem often creates new problems.	F4a
1.5	Stimulate the job of discover about the natural world.	F4a
	Develop a positive self-concept through successful involvement in science activities.	G2b
	Participate in open-ended experiences.	F4a
	Ask questions about the natural world.	F1, F4a
2.0	**SCIENTIFIC ATTITUDES/HABITS OF MIND**	
	To cultivate scientific attitudes and values, to develop an understanding of the limits of science, and to evaluate scientific advances and technological applications as they impact	F2a, F4a

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	society.	
2.1	Demonstrate innate curiosity, initiative, and creativity.	D1b
	Ask questions.	F1, F4a
	Design simple experiments.	F4a
2.2	Be in awe and wonder of the natural world.	no match
	Observe the patterns and variations of nature.	F4a
	Interact with natural objects in the environment.	F4a
2.3	Listen to and be tolerant of different viewpoints.	G3b
	Engage in collaborative activities that lead to group decision making.	F4b
	Exhibit a willingness to modify ideas when new information is presented.	no match
	Develop respect for differing opinions.	G3b
2.4	Trust what the learner observes.	F4a
	Develop a willingness to take risks by trying new tasks and skills.	no match
	Accept results of their own discoveries.	F4a
2.5	Continue probing phenomena until questions are resolved.	F4a
	Engage in problem-solving activities that have multiple solutions or explanations.	F2a, F4a
	Recognize that developing solutions to problems requires time and patience.	F4a
2.6	Develop respect and responsibility for the environment.	E1a
	Recognize the interrelationships of living and non-living things.	F4a
	Demonstrate an appreciation of the environment by engaging in conservation practices.	E1a
3.0	**SCIENTIFIC PROCESSES/THINKING SKILLS**	
	To develop thinking skills and processes for investigating the world, solving problems, and making decisions.	F2a, F4a
3.1	Participate in inquiry-based, manipulative activities that stimulate and develop thinking skills.	F4a
	Develop skills of observation.	F4a
	Use a variety of classification systems.	F4a
	Collect and record information.	F4a
	Describe trends of data and make predictions based on that data.	F4a
	Draw conclusions.	F4a
	Ask questions and solve problems creatively.	F2a, F4a
3.2	Use logical reasoning as a basis for decision making.	F2a, F4a
	Participate in decision making activities.	A2a, F4a
	Explain the basis for decisions.	F1, F4a
3.3	Recognize that science includes both individual and cooperative adventures.	D1a, F4a, G4b
	Work individually and in groups to solve problems.	F2a, G4b
	Observe scientists at work through field trips, audiovisual materials and/or current literature.	F4a
4.0	**LABORATORY INVESTIGATIONS/HANDS-ON LEARNING**	
	To acquire skills for learning through concrete manipulation of the tools and materials of science.	F4a
4.1	Use simple scientific instruments and every day materials to investigate the natural world.	F4a
	Observe the natural world using instruments such as a hand lens, microscope, telescope, etc.	F4a, F5a
	Make temperature, volume, linear, and mass measurements.	F4a
	Employ materials and equipment to illustrate science concepts such as physical forces, magnetism, electricity, etc.	F4a, F5a
4.2	Demonstrate safe and proper techniques for handling, manipulating, and caring for science materials.	C2a, F4a
	Follow safety procedures when handling and manipulating science equipment and materials.	C2a, F4a
	Respect the safety of other students by following procedures and maintaining a clean work area.	C2a, D1a, F4a
	Treat living organisms humanely.	E, F4a
4.3	Engage in active inquiries, investigations and hands-on activities for a minimum of 50% of the instructional time.	A2a
	Realize that hands-on activities lead to development of scientific concepts.	F4a

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	Participate in open-ended investigations.	A2a, F4a
	Regularly participate in hands-on activities that develop laboratory skills.	A2a, F4a
5.0	**SCIENCE CONTENT**	
	To integrate the fields of science and establish connections with other discipline areas and daily life experiences.	F4a
5.1	Develop an understanding of scientific themes including systems, changes, and models.	F4a
5.2	Integrate physical, earth, and life sciences.	F4a
5.3	Establish connections across the curriculum.	F4a
5.4	Investigate living things.	F4a
5.5	Explore the universe and its changes.	F4a
5.6	Examine the interrelationship between matter and energy.	F4a
	FOURTH GRADE CONTENT CONCEPTS	
	SYSTEMS	
	Properties of non-living things: rocks; minerals; fossils; acids and bases; sound waves and mediums; evaporation and condensation; opaque, translucent, and transparent.	F4a
	Observe, predict, measure, test, record, graph, diagram, draw conclusions, and discuss.	F4a
	Structure and function of living things: plant and animal cells: taxonomic groups.	F4a
	Observe, compare, contrast, classify, record, graph, and discuss.	F4a
	Environment: fresh water, salt water, and terrestrial organisms and habitats; climate as related to biomes; waste disposal; food chains.	F4a
	Observe, compare, contrast, classify, record, graph, and discuss.	F4a
	CHANGES	
	Changes in energy: force and work; heat and light; gravity; kinetic and potential energy transformations.	F4a
	Observe, describe, test, measure, record, and discuss.	F4a
	Change in environment: weather; seasons; landforms.	F4a
	MODELS	
	Construction of models: plant cells; animal cells; habitats and food chains.	F4a
	Observe, describe, test, measure, record, and discuss.	F4a
	Construction of models: wave patterns; simple machines; simple electrical circuits; electromagnets and simple motors.	F4a
	Observe, describe, test, measure, record, and discuss.	F4a
	Use models: Electromagnets; simple machines.	F4a
	Observe, describe, test, measure, record, and discuss.	F4a
	Constellations	F4a
6.0	**SCIENCE HISTORY**	
	To develop relationships between scientific milestones and how these milestones influence current scientific thought.	F4a
6.1	Study the lives and discoveries of scientists.	F4a
	Identify past and present scientists and their contributions.	F4a
	Develop a relationship between scientific discoveries and their positive/negative consequences	F4a
	Realize that scientists come form diverse cultures and backgrounds.	F4a
6.2	Recognize that science changes over time.	F4a
	Examine differences in methods and equipment used by scientists in the past.	F4a
	Trace the evolution of selected science concepts (light, magnetism, electricity, etc.)	F4a
	Acknowledge that new discoveries will evolve over time.	F4a
7.0	**SCIENCE, TECHNOLOGY, AND SOCIETY**	
	To develop an understanding of the relationship of science and technology in the context of	F4a

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	society.	
7.1	Use the tools of science effectively and safely.	F4a
	Use scientific instruments such as microscopes, graduated cylinders, and balances.	F5a
	Observe rules of safety relating to the use of science equipment and materials.	C2a, F5a
7.2	Become aware of scientific careers.	F4a
	Recognize the role of science in all careers.	F4a
	Develop an awareness of scientific careers through speakers, field trips, films, role-playing, books, etc.	F4a
7.3	Recognize the use of science in everyday life.	F4a
	Identify ways that science and technology have affected the quality of life in West Virginia and other parts of the earth.	F4a
	Apply selected science concepts to daily events.	F4a
	Engage in activities to help resolve a local science-technology-society issue.	F4a
	SOCIAL STUDIES PROGRAM OF STUDY, LEVEL FOUR	
	REGIONS OF THE NATION AND THE WORLD	
	The Learner Will:	
	A CHILD'S ROLE IN SELF AND GROUP MANAGEMENT	
1.	Investigate regions to determine how people are governed through social control and law.	F4a
2.	Differentiate among national, state, and local government by giving examples of officials and their functions.	F4a
	A CHILD'S STUDY SKILLS	
3.	Suggest appropriate reference sources to answer specific questions, collect information, and prepare short reports.	F4a
4.	Collect, organize and present data in physical form (symbols, pictures, charts, tables)	F4a
5.	Use an age-appropriate social studies vocabulary.	F4a
	A CHILD'S PLACE IN TIME	
6.	Understand how well or poorly different groups (e.g., gender, race, socioeconomic, differently abled) are represented in national, state and local governments; compare the U.S. with other countries.	F4a
7.	Relate continuity and change over time of people's lives by using stories, songs, folk tales, poems, pictures, and famous people.	F4a
8.	Identify and relate customs, traditions, and holidays observe by people of each region.	F4a
	A CHILD'S PLACE IN SPACE	
9.	Locate and describe major geographical regions and their features.	F4a
10.	Read and construct maps to use distance, direction, scale, and legend, using appropriate vocabulary.	F4a
11.	Identify the factors that determine climate and seasonal change.	F4a
12.	Explain differences in natural vegetation and animal populations in each geographical region.	F4a
13.	Describe how people have adapted to and modified their environment culturally, politically, and economically.	F4a
14.	Examine how regions change over time through natural forces and human intervention.	F4a
15.	Construct and use maps, globes, charts, graphs, tables, and grids (latitude/longitude) to display data.	F4a
16.	Consider factors and predict likely consequences of choices related to the use of resources in each geographic region.	F4a
	A CHILD'S NEEDS AND WANTS	
17.	Examine the relationship between taxation and the role of government in meeting the needs of students/citizens.	F4a

West Virginia

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	A CHILD'S PLACE IN SOCIETY	
18.	Recognize that individual citizens have rights and responsibilities within that society.	F4a
19.	Investigate the development of social institutions within regions.	F4a
	WEST VIRGINIA STUDIES, LEVEL FOUR	
	A CHILD'S ROLE IN SELF AND GROUP MANAGEMENT	
1.	Demonstrate responsible decision making, individually and in groups.	D1a, F2a, G4b
2.	Differentiate the roles of law and social control in local and state government.	F4a
	A CHILD'S STUDY SKILLS	
3.	Suggest appropriate reference sources to answer specific questions, collect information, and prepare short reports.	F4a
4.	Collect, organize and present data in physical form (symbols, pictures, charts, tables)	F4a
5.	Use an age-appropriate social studies vocabulary.	F4a
	A CHILD'S PLACE IN TIME	
6.	Describe the daily lives of the early settlers, paying attention to the particular contributions of boys and girls, women and men.	F4a
7.	Describe the daily lives of early settlers.	F4a
8.	Demonstrate knowledge of West Virginia's state symbols.	F4a
9.	Relate the sequence of major historical events to the attainment of West Virginia's statehood.	F4a
10.	Examine the roles of West Virginians during the Civil War period through famous people, places, and events.	F4a
	A CHILD'S PLACE IN SPACE	
11.	Locate West Virginia within a geographic region; locate and identify regions within the state; locate and identify the different boundaries.	F4a
12.	Explain how natural vegetation is typical of geographic location.	F4a
13.	Relate how landforms facilitate exploration and settlement.	F4a
	A CHILD'S NEEDS AND WANTS	
14.	Relate the location of resources such as salt, lumber, coal, oil and gas to settlement patterns.	F4a
15.	Locate and explore the sources of West Virginia's economic development, past, present, and future.	F4a
	A CHILD'S PLACE IN SOCIETY	
16.	Identify and locate sources which demonstrate differences in lifestyles of West Virginians of yesterday and today.	F4a
17.	Identify how cultures and institutions change over time through individual and group contributions.	F4a